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Result
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Maximum Match 100%
Listing first 45 summaries
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         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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DB seq length: 2000000000
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260
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A25677
S07365
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S20519
E22364
T05718
C22364
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A27319
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S07189
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S18235
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                     alpha/beta-gliadin
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glutenin low molec
alpha/beta-gliadin
B3-hordein (clone
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omega secalin prec
gamma-gliadin prec
gamma-gliadin prec
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C-hordein prote
C-hordein (pc horl
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gamma-hordein 3 -
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alpha/beta-gliadin
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probable hordein C
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R;Entwistle, J; Knudsen, S; Mueller, M.; Cameron-Mills, V.
Plant Mol. Biol. 17, 1217-1231, 1991
A;Title: Amber codon suppression: the in vivo and in vitro analysis of two C-hordein A;Reference number: S18350; MUID:92032786; PMID:1932695
A;Accession: S18350
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-260 <ENT>
A;Cross-references: EMBL:X60037; NID:g19000; PIDN:CAA42642.1; PID:g19001
C;Superfamily: gliadin

RESULT 1 S18350

seed storage protein - barley
c;Species: Hordeum vulgare (barley)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change
C;Accession: S18350

20-Aug-1999

	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30
	208.5	211.5	217	218.5	219	230.5	. 234	234	234	234	235.5	236	236.5	237	238	238
	23.0	23.3	24.0	24.1	24.2	25.4	25.8	25.8	25.8	25.8	26.0	. 26.0	26.1	26.2	26.3	26.3
	462	307	1329	68	271	261	1342	1342	292	286	276	286	319	288	359	356
	μ	2	N	N	N	2	Ν	Ŋ	N	Ц	2	Ν	N	Ν	N	N
ALIGNMENTS	LUDO7	S04325	A64828	B25677	T04474	S57655	E85614	G90750	B22364	EEWTA	S57656	S07923	A22364	T06282	T06982	S01992
	annexin VII - slim	glutenin low molec	cell division prot	C-hordein (pc-919)	B1 hordein - barle	glutenin low molec	cell division prot	cell division prot	alpha/beta-gliadin	alpha/beta-gliadin	glutenin low molec	alpha/beta-gliadin	alpha/beta-gliadin	alpha-gliadin prec	glutenin low molec	glutenin low molec

A; Mo A; Re A; CJ R; SJ Natu	Gene A; T: A; Re A; St	RESULT T06211 C-hord C;Spec C;Date C;Acce	Qy Db	Qy Db	Qy Db	м _е
A; Molecule type: DNA A; Residues: 1-310 <said 1-310="" 1980="" 286,="" 520-522,="" <said="" a93228<="" a;="" autran,="" c.c.;="" cross-references:="" d.d.="" e.j.l.;="" embl:s66938;="" j.c.;="" kasarda,="" lew,="" nature="" nid:g442523;="" nimmo,="" number:="" p.r.;="" pid:g442524="" pidn:aab28161.1;="" reference="" residues:="" shewry,="" td=""><td>Genetika 29, 1070-1079, 1993 A:Title: Nucleotide sequence of the barley C-hordein gene. A:Reference number: Z15537; MUID:93380629; PMID:8396543 A:Accession: T06211 A:Status: preliminary; translated from GB/EMBL/DDBJ</td><td>RESULT 2 T06211 T06211 C-bordein precursor - barley C;Species: Hordeum vulgare (barley) C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 11-May-2000 C;Accession: T06211; A03355 C;Accession: T06211; A03355</td><td>122 QIIFQQFQQXYFYQFQQPFFQQPQPVPQQ 150 </td><td>62 TPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQQPQBPIPQQPQQPFPQQPQ 121 </td><td>2 RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61 </td><td>Query Match Q11.7%; Score 830.5; DB 2; Length 260; Best Local Similarity 98.7%; Pred. No. 7.7e-53; Matches 147; Conservative 0; Mismatches 1; Indels 1; Gaps 1;</td></said>	Genetika 29, 1070-1079, 1993 A:Title: Nucleotide sequence of the barley C-hordein gene. A:Reference number: Z15537; MUID:93380629; PMID:8396543 A:Accession: T06211 A:Status: preliminary; translated from GB/EMBL/DDBJ	RESULT 2 T06211 T06211 C-bordein precursor - barley C;Species: Hordeum vulgare (barley) C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 11-May-2000 C;Accession: T06211; A03355 C;Accession: T06211; A03355	122 QIIFQQFQQXYFYQFQQPFFQQPQPVPQQ 150 	62 TPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQQPQBPIPQQPQQPFPQQPQ 121	2 RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61	Query Match Q11.7%; Score 830.5; DB 2; Length 260; Best Local Similarity 98.7%; Pred. No. 7.7e-53; Matches 147; Conservative 0; Mismatches 1; Indels 1; Gaps 1;

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Run on:
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
Published_Applications_NA:*

1: /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*

2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*

3: /cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*

4: /cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*

5: /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

6: /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

7: /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

8: /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*

9: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*

9: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*

11: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*

12: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*

13: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*

14: /cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   May 25, 2003, 18:57:50 ; Search time 150.754 Seconds
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Gapop 10.0 , Gapext 1.0
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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69.4	70.2	77	77.2	77.4	91.2	92.6	93.6	94.4	94.4	94.4	94.4	100.2	100.2	103	103	103	106.2	106.2	Score
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Sequence 21484, A	Sequence 6690, Ap	Sequence 6, Appli	Sequence 3936, Ap	Sequence 768, App	Sequence 19531, A	Sequence 20699, A	Sequence 3, Appli	Sequence 345, App	Sequence 343, App	Sequence 342, App	Sequence 340, App	2513,	-	Sequence 1058, Ap	•	Sequence 1058, Ap	Sequence 34/1, Ap	Sequence 20241, A	Description

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PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: US 60/234,687
PRIOR FILING DATE: 2000-09-21
PRIOR APPLICATION NUMBER: US 09/608,408
PRIOR FILING DATE: 2000-06-30
PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
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             APPLICANT: Penn, Sharron G. APPLICANT: Rank, David R.
APPLICANT:
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IN HEART, SIGNAL = 9
IN HBL100, SIGNAL = 12
IN BT474, SIGNAL = 11
IN FETAL LIVER, SIGNAL = 10
IN ADULT LIVER, SIGNAL = 8.4
IN BONE MARROW, SIGNAL = 10
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D IN HEART, SIGNAL = 9

D IN HBLHOO, SIGNAL = 12

D IN BT474, SIGNAL = 11

D IN FETAL LIVER, SIGNAL = 11

D IN ADULT LIVER, SIGNAL = 8

D IN ADULT LIVER, SIGNAL = 8

D IN BONE MARROW, SIGNAL = 12
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Pred. No. 1.2e-19;
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RESULT 3
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US-10-025-380-1058
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SEQ ID NO 1058
LENGTH: 15720
TYPE: DNA
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Best Local
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CURRENT APPLICATION NUMBER: US/10/025,380
CURRENT FILING DATE: 2001-12-19
NUMBER OF SEQ ID NOS: 1129
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND DIAGNOSIS
TITLE OF INVENTION: OF COLON CANCER AND METHODS FOR THEIR US
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Wang, Tongtong
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Benson, Darin R.
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Smith, Carole L.
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                                                                                                                                                                                    Score 103; DB 9;
Pred. No. 2.4e-18;
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SEQ ID NO 1058
LENGTH: 15720
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Best Local Similarity
Matches 252; Conserv
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APPLICANT:
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CURRENT FILING DATE: 2001-08-03
NUMBER OF SEQ ID NOS: 1124
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TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND DIAGNOSIS
TITLE OF INVENTION: OF COLON CANCER AND METHODS FOR THEIR USE
FILE REFERENCE: 210121.471C13
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CCCCTACAACCACAACAACCAT - - - TCCCCCCAACAACCACAACAACCTCTTCCTCGGCCC
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Smith, Carole Lynn
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Benson, Darin R.
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Pred. No. 2.4e-18;
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APPLICANT: Meagher, Madeleine J.
TITLE OF INVENTION: COMPOUNDS FOR IMMUNOTHERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF COLON CANCER AND METHODS FOR THEIR
FILE REFERENCE: 210121.471C12
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CURRENT FILING DATE: 2001-04-10
NUMBER OF SEQ ID NOS: 1093
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Stolk, John A.
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Pred. No. 2.4e-18;
0; Mismatches 200
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OTHER INFORMATION: MAP TO ALO78472.1

OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 19

OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 19

OTHER INFORMATION: EXPRESSED IN HT474, SIGNAL = 34

OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 7.1

OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 7.1

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 28

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 20

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 25

OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 25

OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 18

OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 21

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 21
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SEQ ID NO 19241
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PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR FILING DATE: 2000-08-03
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APPLICATION NUMBER: PCT/US01/00670
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US-09-864-761-2513/c; Sequence 2513, Application; Patent No. US20020048763A1
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PRIOR FILLING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILLING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR APPLICATION NUMBER: US 09/632,366
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILLING DATE: 2000-010-04
PRIOR FILLING DATE: 2000-09-27
PRIOR FILLING DATE: 2000-09-27
PRIOR FILLING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR FILLING DATE: 2001-01-30
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CURRENT FILING DATE: 2001-05-23
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APPLICANT: Chen, Wensheng
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Penn, Sharron G. APPLICANT: Rank, David R.
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APPLICATION NUMBER: PCT/USO1/00664
FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/USO1/00669
FILING DATE: 2001-01-30
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Pred. No. 4.1e-18;
0; Mismatches 203;
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SEQ ID NO 2513
LENGTH: 1403
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Best Local Similarity
Matches 222; Conserv
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OR APPLICATION NUMBER: PCT/US01/00670
OR FILING DATE: 2001-01-30
OR APPLICATION NUMBER: US 60/234,687
OR FILING DATE: 2000-09-21
OR APPLICATION NUMBER: US 09/608,408
OR APPLICATION NUMBER: US 09/608,408
OR FILING DATE: 2000-06-30
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FR INFORMATION: EXPRESSED I
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ED IN LUNG, SIGNAL = 19

ED IN BT474, SIGNAL = 34

ED IN FETAL LIVER, SIGNAL = 7

ED IN ADULT LIVER, SIGNAL = 7

ED IN HELA, SIGNAL = 43

ED IN PLACENTA, SIGNAL = 20

ED IN HELAT, SIGNAL = 25

ED IN HELAT, SIGNAL = 25

ED IN HEATT, SIGNAL = 25

ED IN HEATT, SIGNAL = 25

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; NAME/KEY: CDS
; LOCATION: (1)..(867)
US-09-216-393-340
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                                                                                          Sequence 342, Application US/09216393
Patent No. US20010014447A1
GENERAL INFORMATION:
APPLICANT: Milhausen, Michael James
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APPLICANT: Milhausen, Michael James
APPLICANT: MILHAUSEN, MICHAEL James
TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS, NUCLEIC ACID MOLECULES,
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: TX-1-C2
TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS, TITLE OF INVENTION: USES THEREOF FILE REFERENCE: TX-1-C2 CURRENT APPLICATION NUMBER: US/09/216,393 CURRENT FILING DATE: 1998-12-18
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Best Local
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LENGTH: 867
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CURRENT FILING DATE: 1998-12-18
EARLIER APPLICATION NUMBER: 08/994,825
EARLIER FILING DATE: 1997-12-19
NUMBER OF SEQ ID NOS: 364
SOFTWARE: Patentin Ver. 2.0
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Pred. No. 1.5e-16;
0; Mismatches 221
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; NUMBER OF SEQ ID NOS: 364
; SOSTWARE: PATENTIN VET. 2.0
; SEQ ID NO 342
; LENGTH: 867
; TYPE: DNA
; ORGANISM: TOXOPLASMA gondi
US-09-216-393-342
                                                     ; LOCATION: (238)..(1104)
US-09-216-393-343
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APPLICANT: Milhausen, Michael James
APPLICANT: Milhausen, Michael James
TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS,
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: TX-1-C2
                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 343
LENGTH: 1397
Best Local Similarity
                    Query Match
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EARLIER APPLICATION NUMBER: 08/994,825
EARLIER FILING DATE: 1997-12-19
NUMBER OF SEQ ID NOS: 364
                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/216,393 CURRENT FILING DATE: 1998-12-18
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                                                                                                         ORGANISM: Toxoplasma FEATURE:
                                                                                                                                            TYPE: DNA
                                                                                        NAME/KEY: CDS
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Pred. No. 1.5e-16;
0; Mismatches 221;
94.4;
No. 1.
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4; DB 10;
1.9e-16;
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              Length 1397;
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GENERAL INFORMATION:
APPLICANT: Milhausen, Michael James
APPLICANT: Milhausen, Michael James
TITLE OF INVENTION: TOXOPLASMA GONDII PROTEINS, NUCLEIC ACID MOLECULES, AND
TITLE OF INVENTION: USES THEREOF
FILE REFERENCE: TX-1-C2
CURRENT APPLICATION NUMBER: US/09/216,393
CURRENT FILING DATE: 1998-12-18
CURRENT FILING DATE: 1998-12-18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 345, Application US/09216393 Patent No. US20010014447A1
                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 364
                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Toxoplasma
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                                                                                                                                                                                                                                                        Local
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                                                                 CACACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACC
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Pred. No. 1.9e-16;
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                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 219; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/077,584
CURRENT FILING DATE: 2002-02-15
PRIOR APPLICATION NUMBER: 60/269,157
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TITLE OF INVENTION: YEAST SCREENS FOR THE TREATMENT OF HUMAN DISEASE
FILE REFERENCE: ARCD:367US
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LOCATION: (1)
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ORGANISM: Homo
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RESULT 13
US-09-864-761-20699/c
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LENGTH: 446
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                                                                                                                                                                                                                 SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
                                                                                                                                                                                                                                                        PRIOR FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: GB 24263.6
PRIOR FILING DATE: 2000-10-04
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2000-02-04 PRIOR APPLICATION NUMBER: US 60/207,456
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Penn, Sharron G. APPLICANT: Rank, David R.
                              OTHER INFORMATION: MAP TO ACO07249.2
OTHER INFORMATION: EXPRESSED IN HEART; SIGNAL =
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNOTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL =
OTHER INFORMATION: EXPRESSED IN HELIOO, SIGNAL =
                                                                                                                                                                                                                                    NUMBER OF SEQ ID NOS: 49117
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                   OTHER
OTHER
                                                                                                                           ORGANISM: Homo sapiens FEATURE:
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D IN FETAL LIVER, SIGNAL = 13
D IN LUNG, SIGNAL = 13
D IN HBLIOO, SIGNAL = 12
D IN HELA, SIGNAL = 13
D IN PLACENTA, SIGNAL = 13
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                                                   PRIOR FILING DATE:
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APPLICATION
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CACCACCACCGCCACCACCACCACCACCACCACGAGGT
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EXPRESSED IN BT474, SIGNAL = 13
EXPRESSED IN BRAIN, SIGNAL = 12
EXPRESSED IN BONE MARROW, SIGNAL = 9.7
NT HIT: AL161539.2, EVALUE 3.70e+00
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51.9%;
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PRIOR APPLICATION NUMBER: PCT/US01/00669 PRIOR FILING DATE: 2000-10-04
PRIOR APPLICATION NUMBER: US 60/236,359
PRIOR FILING DATE: 2000-09-27 PRIOR APPLICATION NUMBER: US 60/180,312
PRIOR FILING DATE: 2000-02-04
PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR FILING DATE: 2000-05-26 CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23 APPLICANT: Hanzel, David K.

APPLICANT: Chen, Wensheng

TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL

TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00664 PRIOR FILING DATE: 2001-01-30 PRIOR APPLICATION NUMBER: PRIOR APPLICATION NUMBER: US (PRIOR FILING DATE: 2000-08-03 FILE REFERENCE: Aeomica-X-1 APPLICATION NUMBER: APPLICATION NUMBER: NUMBER: PCT/US01/00665 2001-01-30 2001-01-30 PCT/US01/00666 US 09/632,366 PCT/US01/00667 GB 24263.6

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US-09-864-761-768/c

Sequence 768, Application US/09864761

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OTHER INFORMATION: MAP TO Z83851.17

OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 7

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 12

OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN BLIOO, SIGNAL = 13

OTHER INFORMATION: EXPRESSED IN HELLOO, SIGNAL = 11

OTHER INFORMATION: EXPRESSED IN LOO, SIGNAL = 13

OTHER INFORMATION: EXPRESSED IN LOO, SIGNAL = 13
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PRIOR APPLICATION NUMBER: US 09/774,203
PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 49117
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APPLICATION NUMBER: US 09/608,408
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APPLICATION NUMBER: PCT/US01/00662
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APPLICATION NUMBER: US 60/234,687
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RESULT 15

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US-09-864-761-768
                    Query Match
Best Local Similarity
                                                                                               OTHER INFORMATION: MAP TO 26
OTHER INFORMATION: EXPRESSES
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    Matches 177;
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PRIOR FILING DATE: 2000-09-27
PRIOR APPLICATION NUMBER: PCT/US01/00666
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: PCT/US01/00667
PRIOR FILING DATE: 2001-01-30
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PRIOR APPLICATION NUMBER:
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D IN BRAIN, SIGNAL = 17
D IN HEART, SIGNAL = 7
D IN PLACENTA, SIGNAL = 11
D IN BT474, SIGNAL = 11
D IN BONE MARROW, SIGNAL = 11
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Search completed: May 25, 2003, 20:22:00 Job time: 152.754 secs

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ALIGNMENTS

JOURNAL COMMENT REFERENCE AUTHORS ACCESSION VERSION RESULT 1 BQ755360 FEATURES SOURCE LOCUS DEFINITION KEYWORDS TITLE ORGANISM source Genome Dynamics/Computational Biology Scottlish Crop Research Institute Invergowrie, Dundee, DD2 5DA, Scotland Tel: 00 44 1382 562731 Fax: 00 44 1382 562426 Email: est@scri.sari.ac.uk. 1 (bases 1 to 567)
Hedley,P., Liu,H., Caldwell,D., McCallum,N., Mudie,S., Cardle,L.,
Ramsay,L., Machray,G., Marshall,D.F.M. and Waugh,R.
Development of Barley Transcriptome Resources
Unpublished (2001) Hordeum vulgare Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae sequence. BO755360 BO755360.1 GI:21963832 BQ755360 567 bp mRNA linear EST 26-JUL-2002 EBed07_SQ002_L09_R endosperm, 28 DPA, no treatment, cv Optic, EBed07 Hordeum vulgare cDNA clone EBed07_SQ002_L09 5', mRNA EST Contact: Waugh R, Marshall DF Hordeum vulgare. Triticeae; Hordeum. /organism="Hordeum vulgare" Location/Qualifiers 1. .567 Scotland, UK

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RESULT 2
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HVSMEh0088M16f Hordeum vulgare 5-45 DAP spike EST library
HVcDNA0009 (5 to 45 DAP) Hordeum vulgare cDNA clone HVSMEh0088M16f,
mRNA sequence.
l (bases 1 to 585).
Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begu,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., R.D., Close,S.J., Oates,R. and Main,D.
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/db_xref="taxon:4513"
/clone="EBed07_SQ002_L09"
/clone_lib="endosperm, 28
EBed07"
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                         Choi, D.W., Fenton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                567;
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                                              Frisch, D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Optic.
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QУ

рЬ Qy DЬ Q В

В

VERSION

Š Вþ QУ DЪ Qy Db ORIGIN

В

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JOURNAL
COMMENT
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                    124
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    244
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                                                                                                                                                                                                                                                                           64 CCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clemson University
100 Jordan Hall, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: rwing@clemson.edu
Total hq bases = 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tel: 864 656 7288 Fax: 864 656 4293
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                                                                                                                                                                                                                                                                                                                                                                      4
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  CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCC
                                                                                           ACACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCAATATCAAATACCA 183
                                                                                                                                                                                                                               CCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCAC
                                                                                                                                                                                                                                                                                                                           AGGCAACTAAACCCTAGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCAGCAG
                                                                                                                                                                                                                                                                                                                                                AGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAG
                                                primer: AATTAACCCTCACTAAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  208
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                California, Riverside (Fenton), SJ (Lose), TJ (Lose), Whole spikes with awns trimmed were collected at 5, 10, 15, 20, 30 and 45 DAP (Fenton). Total RNA was prepared from each pool, equal quantities of all six RNA pools were combined, poly(A) RNA was purified from the mixture, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids (Choi)in the TJ Close lab at the University of California, Riverside. Phagemids were plated and picked at the Clemson University Genomics Institute (CUG1) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUG1 (Wing, Yu, Frisch, Henry, Slamons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           http://www.genome.clemson.edu/projects/barley. To order this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored Err ersources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html)" 3 228 c 47 g 102 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /Clone_lib="Hordeum vulgare 5-45
HVcDNA6009 (5 to 45 DAP)"
/tissue_type="5-45 DAP Spike"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cultivar="Morex"
/db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  above. For more details on library preparation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plants were grown in the greenhouse at the University of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /clone="HVSMEh0088M16f"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Hordeum vulgare"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence analysis see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="Vector: lambdaZAP;
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84.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 319; DB 10;
Pred. No. 3.7e-59;
                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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KEYWORDS
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BE601687
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    424
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BE601687 507 bp mRNA linear EST 22-OCT-2001
HVSMEh0099C23f Hordeum vulgare 5-45 DAP spike EST library
HVcDNA0009 (5 to 45 DAP) Hordeum vulgare cDNA clone HVSMEh0099C23f,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D., 1,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Choi,D.W., Fenton,R.D., Close,S.J., Oates,R. and Main,D.
Development of a genetically and physically anchored EST resource for barley genomics: Morex 5-45 DAP spike cDNA library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA sequence.
BE601687
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100 Jordan Hall, C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hordeum vulgare
Eukaryota; Viridiplantae: Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Lillopsida; Poales; Poaceae; Pooldea;
Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Clemson University Genomics Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BE601687.2 GI:13190239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Email: rwing@clemson.edu
Total hg bases = 421
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      primer: AATTAACCCTCACTAAAGGG
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   864 656 7288
864 656 4293
/notce "Vector: lambdaZAP; Site_1: EcoR1; Site_2: Xhol; /notce "Vector: lambdaZAP; Site_1: EcoR1; Site_2: Xhol; Plants were grown in the greenhouse at the University of California, Riverside (Fenton, SJ Close, TJ Close). Whole spikes with awns trimmed were collected at 5, 10, 15, 20, 30 and 45 DAP (Fenton). Total RNA was prepared from each pool, equal quantities of all six RNA pools were combined, poly(A) RNA was purified from the mixture, one primary unamplified cDNA library was made, and I million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids (Chol)in the TJ Close lab at the University of California, Riverside. Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wing RA
                                                                                                                                                                                                                                                                                                                                                                         /db_xref="taxon:4513"
/clone="HYSMEh0099C23f"
/clone=lib="Hordeum vulgare 5-45 DAP spike EST library
HYCDNA0009 (5 to 45 DAP)"
/tissue_type="5-45 DAP Spike"
/lab_host="SOLR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Hordeum vulgare"
/cultivar="Morex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000 this sequence version replaced gi:9859248
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM
                                                                                                                                                                                                                                                                                                        AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            936 bp mRNA linear EST 22-OCT-200: HVSME10004I23f Hordeum vulgare 20 DAP spike EST library HVcDNA0010 (20 DAP) Hordeum vulgare cDNA clone HVSME10004I23f, mRNA sequence. BC365870
                                     Clemson University
100 Jordan Hall, C
                                                                                     Contact: Wing RA Clemson University Genomics Institute
                                                                                                                                     for barley genomics: Morex 20 DAP spike cDNA library Unpublished (2001) On Mar 8, 2001 this sequence version replaced gi:13254969
                                                                                                                                                                                                                     Wing,R., Close,T.J., Kleinhofs,A., Wise,R., Begum,D., Frisch,D., Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Choi,D.W., Fenton,R.D., Close,S.J., Oates,R. and Main,D.
Development of a genetically and physically anchored EST resource
                                                                                                                                                                                                                                                                                                                                                                            Eukaryota: Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae
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                                                                                                                                                                                                                                                                                                                            Triticeae; Hordeum. (bases 1 to 936)
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124 ACACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACCA 183
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456 CAACAACAAA 465
                                                  361 CAACAAATAA 370
                                                                                             336 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                                                                                                                                              244 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                                                                                                                                                                                                 CAACAACC - - - ATTCCCCTGGCAACCACCACAACCATTTCCCCCAGCCCCAAGAACCAATT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sequence analysis see
http://www.genome.clemson.edu/projects/barley.
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92.2%;
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Pred. No. 9.6e-58;
"'-matches 26;
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390 ATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCCAACA 449
                                                                                                           303 ACAACCACAACAACCATTCCCACAGCAACCACCAACAACCATTCCCCCCACCTACCACAACA
                                                                                                                                                              330 ACAACCATTTCCCCAGCCCCAAGAACCAATTCAACAAATTATTTCCAGCAACCCCAACA 389
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rwing@clemson.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html)" a 351 c 69 g 177 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (Begum, Palmer, Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or above. For more details on library preparation and sequence analysis see http://www.genome.clemson.edu/projects/barley.To order this in the contains and sequence analysis see
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ). Total RNA was prepared, poly(A) RNA was purified, one primary unamplified cDNA library was made, and 1 million pfu were in vivo excised to give pBluescript SK(-) cDNA phagemids in the TJ Close lab at the University of California, Riverside (Choi). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI)
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California, Riverside (Fenton, SJ Close, TJ Close). Whol
spikes with awns trimmed were collected at 20 DAP (Fento
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone_lib="Hordeum vulgare 20 DAP spike EST library
HVcDNa0010 (20 DAP)"
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/cultivar="Morex"
/db_xref="taxon:4513"
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/lab_host="SOLR"
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81.4%;
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Pred. No. 2.9e-52;
""amatches 76;
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RESULT 6
AJ485191
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sequence

AJ485191 420 bp mRNA linear EST 24-MAY-2002 AJ485191 800011 Hordeum vulgare cDNA clone S0001100164F01F1, mRNA

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AJ435523/c
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                                 304 CAACAACCATTCCCCTGGCAACCACCAACAACCATTTCCCCCAGCCCCAA 351
                                                                           129 CAAAAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCC
                                                                                                               244 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCC
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69 CAACAACAACAACAACAACGGCAACAACAACAGCAGCCCTCGTGCCGA
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                University of Helsinki
P.O.Box 56 (Viikinkaari 6A), University of Helsinki FIN-00014,
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Institute of Biotechnology
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EST
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/db_xref="taxon:4513"
/clone="50001100053F10F1"
/clone_lib="500011"
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85.3%;
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Pred. No. 1.
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AJ485191.1 GI:21
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Hordeum vulgare.
Hordeum vulgare.
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                                                                                                                                                              sequence.
AJ484592
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Institute of Biotechnology
University of Helsinki
P.O.Box 56 (Viikinkaari 6A), University of Finland.
              1 (bases 1 to 360) Saren, A.-M., Tanskanen, J., Paulin, L. and Schulman, A.H.
                                                            Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
                                                                                                                               AJ484592.1
EST.
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AJ484592 S000ll Hordeum
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                                                                                                              Hordeum vulgare
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                                               Triticeae; Hordeum.
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/note="12,15,18 days after pollination"
156 c 43 g 76 t
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/clone="80001100164F01F1"
/clone_lib="800011"
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Pred. No. 1.9e-43
                                                                                                                                                                                            360 bp mRNA linear EST 24-MAY-20 vulgare cDNA clone S0001100047B07F1, mRNA
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Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
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Contact: Schulman
                                                                                     University of Helsinki
P.O.Box 56 (Viikinkaar
                                                                                                                  Unpublished (2002)
Contact: Schulman AH
Institute of Biotechnology
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AJ484591.1
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Barley EST's
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/note="12,15,18 days after pollination"
37 c 136 g 120 t
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/clone="S0001100043B09F1"
                                             Location/Qualifiers
1. .300
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/db_xref="taxon:4513"
/clone="80001100047B07F1"
/clone_lib="800011"
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                                                                                                                                                                                          The Arabidopsis Information Resource Carnegie Institution of Washington, Dept. c 260 Panama Street, Stanford, CA 94305, USA Tel: 1 650 325 1521 x 251 Fax: 1 650 325 3748
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Clarke, B., Lambrecht, M. and Rhee, S.
Assessing the utility of Arabidopsis genomic information
interpreting wheat EST sequences
                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; Liliopsida; Poales; Poaceae; Pooldea;
Triticeae; Triticum.
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              340
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49
                                                                                                                                                                           rhee@acoma.stanford.edu
         /dev_stage="developing endosperm tissue (days post anthesis)"
/note="Vector: Bluescript II SK(-)"
365 c 90 g 145 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="S00011"
/dev_Stage="Developing seed"
/note="12,15,18 days after pollination"
/note="12,15,18 days after pollination"
                                                                                                   /db_xref="taxon:4565"
                                                                                                                  /organism="Triticum aestivum"
/cultivar="Wyuna"
                                                                      /tissue_type="endosperm"
                                                                                 /clone_lib="wheat EST endosperm library"
                                                                                                                                                             Location/Qualifiers
                                                                                                                                                  .940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         49.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 236.8; DB 9
Pred. No. 1.8e-41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - ACAACCACAACAACCTCTTCCTCGGCCCCAAAAACCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         940 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
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                                                        10 and 12
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BQ472381
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TITLE
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                               sequence.
BQ472381
                                                                                                             Seq primer:
                                                                                                                              Insert Length: Plate: 9 row:
                                                                                                                                                                                                                                                Contact: Stein Nils
                                                                                                                                                                                                                                                                Unpublished (2002)
                                                                                                                                                                                                                                                                                                                                                                       Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                                                                    Hordeum vulgare.
                                                                                                                                                                                                                                                                                                                                                                                                                 BQ472381.1
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                                                                                                                                                                           Fax: 039482-5595
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВС
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73.5%;
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415 CCATTTCCTCAACAACCTCAA 435
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        355 CCAATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAACAG 414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304 CAACAACCA-----TTCCCCTGGCAACCACAACCATTTCCCCCAGCCCCAAGAA 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           391 CAACAACAATTACCCTTGCAACCACAACAATCATTTCCCCAGCCCCAACATCCAATTCCC 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4 AGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAG 63
                                                                                                                                                                                                                                                                                                                                                                                         Molecular Markers Group, Department Genbank
Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
Tel: 039482-5522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (bases 1 to 595)
Radchuk,V., Zhang,H., Weschke,W., Potokina,E.
Barley ESTs from developing seeds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                         Email: stein@ipk-gatersleben.de
Insert Length: 595 Std Error:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAACCACAACAATAATTCCCCAGCAAACAACAACAACCATTTCCCCTGCAACCTCAACAA 570
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCATTCCCACAACAACCACAA 591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGCAACCACAACAATCGTTCCCGCAACAACCCCAGAGACCAGAGCAACAATTCCCCCAG
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/cultivar="Barke"
/db_xref="taxon:4513"
/clone="HB09M16"
/clone=lib="BC"
                                                                                                                                                                                                                                                                              row: M column: 16
/tissue_type="developing caryopsis"
/dev_stage="8-15 DAP (days after pollination)"
                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hordeum vulgare cDNA clone HB09M16 5-PRIME, mRNA
                                                                                                                                                                                                                                                                                                         Std Error: 0.00
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Pred. No. 1.3e-38;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EST 31-MAY-2002
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VERSION
KEYWORDS
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BI947525
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JOURNAL COMMENT
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                                                                                                                                                                                                                                                                                  ORGANISM
                                                                                                                                                                  AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 45.9%;
Local Similarity 71.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     484
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        544 AACAACCATTCCCCTGGCAACCACCAACCAACCATTTTCCC
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                                                                                                                                                                                                                                                                                                                                                                                                                       B1947525 1008 bp mRNA linear EST 19-OCT-2001
HVSME10005M10f Hordeum vulgare spike EST library HVcDNA0012
(Fusarium infected) Hordeum vulgare cDNA clone HVSME10005M10f, mRNA
                                                                                                                                                                                                                                   Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae
for barley genomics: Fusarium
Unpublished (2001)
Contact: Wing RA
                                                                                                                 Wing,R., Muehlbauer,G.J., Close,T.J., Kleinhofs,A., Wise,R., Heinen,S., Begum,D., Frisch,D., Yu,Y., Henry,D., Palmer,M., Rambo,T., Simmons,J., Fenton,R.D., Malatrasi,M., Choi,D.W., Oates,R. and Main
                                                                                                                                                                                                                                                                                                                                 EST
                                                                                                                                                                                                                                                                                                                                                         BI947525.1
                                              Development of a genetically and physically anchored EST resource for barley genomics: Fusarium infected Morex spike cDNA library
                                                                                                                                                                                                                                                                                                          Hordeum vulgare.
                                                                                                                                                                                                                                                                                                                                                                                                      sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACCAA 184
                                                                                                                                                                                      Triticeae; Hordeum. (bases 1 to 1008)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCACAACCATTCTCCCTGCAACCCCCAACAACCATCAACCTTTTCCTCGGCCCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       196
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Pred. No. 1.6e-37;
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296 CAATTCCC----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     High quality sequence stop:
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: rwing@clemson.edu
Total hq bases = 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fax: 864 656 4293
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                                                                                                                                                          CCCCCCTACAACCACAACAACCATTC------CCCCAACAACCACCACAACAACCTCTTC 235
                                                                                                                                                                                                                                              CACCCCAACAATATTTCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACCAA 184
                                                                                                                                                                                                                                                                                                                                           CATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACA 124
                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGCTAAACCCTAGCTACCAAGAGTTGCAATCACCACAACAACCATTTCTGAAACAAC
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                                                                                                                                primer: AATTAACCCTCACTAAAGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html) a 369 c 94 g 235 t 1 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sequence analysis see http://www.genome.clemson.edu/projects/barley. To order
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /clone_lib="Hordeum vulgare spike EST library HVcDNA0012
(Fusarium infected)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone="HVSME10005M10f"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /db_xref="taxon:4513"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /cultivar="Morex"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              above. For more details on library preparation and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Vector: pBluescript SK(-); Site_1: ECORI; Site_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab_host="TJC121"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Hordeum vulgare"
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74.4%;
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-CAACAACCATTCCCCTGGCAACCACCAACAACCATTTCCCCCAGC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 218.6; DB 1
Pred. No. 2.2e-37;
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       346
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	205 CCATTCCCCCAACAACCACAACCTCTTCCTCGGCCCCAACAACCATTC 255	VQ
Best Loc Matches	188 GAGCAATCACAACCATTTACCCAGCCCCAACAACCGACCCCCATACAACCACAACAA 247	Db
Query Ma	45 TATCTACCAGAGGAATTGTTTCCCCAATATCAAATACCAACCCCCCTACAACCACAACA	Qy
BASE COUNT	128 TCATCACAGCAACCATATCCATCGCAACAACCATTTCCCACACCCCCAACAACTTTCCC 187	Db
	85 CTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACGCCCAACAATATTTCCCC 144	Qy
	25 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGGCATATCCACAAAACCCATAT 84	Оу
	Query Match 45.7%; Score 218; DB 14; Length 560; Best Local Similarity 74.1%; Pred. No. 2.5e-37; Matches 329; Conservative 0; Mismatches 85; Indels 30; Gaps 3;	Query Best I Matche
	Jnote="Vector: pCMV-SPORT6.0 (Invitrogen Technologies); Site_1: Not1; Site_2: Mlu1; mRNA obtained from wheat seeds of cultivar Glenlea 15 days post-anthesis" OUNT 192 a 240 c 41 g 87 t	BASE COUNT
FEATURES	/tissue_type="developing seeds" /dev_stage="15 days after anthesis" /lab_host="E. coli DH10B"	
	<pre>/db_xref="taxon:4565" /clone="TaE15020E06R" /clone_lib="TaE15"</pre>	
<u>.</u>	/or	
	Seq primer: M13 Rev Location/Q rce 1560	FEATURES SOU
TITLE JOURNAL COMMENT	was cloned directionally, not all sequences generated with reverse primer were from the 5' end (same with forward primer and 3' end). Average insert size is >1.4 kb Plate: 020 row: E column: 06	
REFERENCE AUTHORS		
	Cereal Research Centre, Agriculture and Agri-food Canada 195 Dafoe Rd, Winnipeg, MB, Canada R3T 2M9 Tel. 7204 NB3-3240	
SOURCE	AL Unpublished (2002) Contact: Dr. Sylvie Cloutier	JOURNAL COMMENT
VERSION VERSION	1 (bases 1 to 560) Cloutier, S. Wheat functional genemics - Glenles developing seeds cons libraries	REFERENCE AUTHORS
LOCUS	Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.	
RESULT 13 BQ472392	MSIN	SOURCE
Db	z	ACCESSION VERSION
Qy		DEFINITION
Db	B0245760	BQ245760
Qy	12	RESIII.T 1
da	526 CACAACAACCATTT 539	Db
Qy	407 CTCAACAGCCATTT 420	Оу
Db	469 AACCCCAACAACCACATCAACCTTTTCCTCGGCCCCAACAACCATTCCCCTGGCAAC 525	Db
Qy	CAATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGT	Оy
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BQ472392
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Institute of Plant Genetics and Crop Plant Research (IPK)
Corrensstr. 3, 06466, Gatersleben, Germany
Tel: 039482-5522
Fax: 039482-5595
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1 (bases 1 to 611)

Radchuk, V., Zhang, H., Weschke, W.,
Barley ESTs from developing seeds
Unpublished (2002)
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae
; Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: stein@ipk-gatersleben.de
Insert Length: 611 Std Error:
Plate: 9 row: M column: 2
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  45.7%;
nilarity 71.3%;
Conservative
                                                                                                                             198
                                                                                                                /note="Vector: pBluescript SK+; Site_1: EcoRI (5'-end of cDNA); Site_2: XhoI (3'-end of cDNA); developing caryopsis 8-15 DAP(days after pollination) Due to a cloning artefact caused by the kit, in most cases the EcoRI site is NOT present, as well as the EcoRIadapter used for cloning. To excise the insert, restriction sites upstream EcoRI should be used (e.g. BamHI, SalI,PstI). NOTE: Also due to the cloning system used Blue/white selection for recombinats is not 100% reliable."
                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="developing caryopsis"
/dev_stage="8-15 DAP (days after pollination)"
/lab_host="XL10-Gold"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Hordeum vulgare"
/cultivar="Barke"
/db_xref="taxon:4513"
/clone="HB09M02"
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Score 217.8; DB 14; Length 611; Pred. No. 2.9e-37; 0; Mismatches 112; Indels 18;
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lumn: 2
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DEFINITION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         575 CATTCCCCTGGCCACCACCACCACCATTTTCC 607
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                                                                                                                                                                                                                                                                                   Email: rwing@clemson.edu
Total hq bases = 508
Seq primer: AATTAACCCTCACTAAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Clemson University
100 Jordan Hall, C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Clemson University Genomics Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for barley genomics: Fusarium infected Morex spike cDNA library Unpublished (2001)
Contact: Wing RA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wing, R., Muehlbauer, G.J., Close, T.J., Kleinhofs, A., Wise, R., Heinen, S., Begum, D., Frisch, D., Yu, Y., Henry, D., Palmer, M., Rambo, T., Simmons, J., Fenton, R.D., Malatrasi, M., Choi, D.W., Oates, R. and Main
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae
; Triticeae; Hordeum.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Development of a genetically and physically anchored EST resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CC-----CAACAACCATTCCCCTGGCAACCACAACATTTCCCCAGCCCCAAG 352
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864 656 4293
                                                                                                                                                                                      Location/Qualifiers
/clone="HVSME10024C19f"
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                                                                                             /organism="Hordeum vulgare"
/cultivar="Morex"
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                                                                                                                                                                                                                                                                                                                            393 ATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCCCAACAAG 451
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46 CAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCA 105
BQ804665 706 bp mRNA linear EST 31-JUL-
WHE3557_D02_H03ZS Wheat developing grains cDNA library Triticum
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                                                                                                                                                                                                ACAACCAGTTCTATCGCAGCAACAACCATGTACACAAGACCAAACACCACTCCTACAAG 511
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCATTTCCACAACAGCCCATCCCACAACAACCACAACCATACCCACAACAACCACAACC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 this clone see http://www.genome.clemson.edu/orders Also see Close TJ, Wing R, Kleinhofs A, Wise R (2001) Genetically and physically anchored EST resources for barley genomics. Barley Genetics Newsletter 31:29-30. (http://wheat.pw.usda.gov/ggpages/bgn/31/cover.html)" a 299 c 104 g 157 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Frisch, Atkins and Wing). Plasmid DNA preparations, DNA sequencing and sequence analysis were performed at CUGI (Wing, Yu, Frisch, Henry, Simmons, Oates, Rambo, Main). The sequence has been trimmed to remove vector sequence and contains a minimum of 100 bases of phred value 20 or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    prepared from each sample pool, equal quantities of all eight RNA pools were combined, poly(A) RNA was purified from the mixture, one primary unamplified cDNA library was made, and l million pfu were in vivo excised to give pBluescript SK(+) CDNA phagemids (Choi, Penton, Malatrasi ). Phagemids were plated and picked at the Clemson University Genomics Institute (CUGI) (Begum, Palmer, University Genomics Institute (CUGI) (Begum, Palmer, Malatrasi ).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence analysis see
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/tissue_type="Spike"
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73.78;
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Pred. No. 1.3e-36;
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Indels

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Gaps -ACAA 45

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RESULT 14

FEATURES

EST 31-JUL-2002

COMMENT

TITLE

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AUTHORS

SOURCE KEYWORDS VERSION ACCESSION

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Query Match Best Local Matches 32	BASE COUNT	FEATURES SOURCE	TITLE JOURNAL COMMENT	SOURCE SOURCE ORGANISM REFERENCE AUTHORS	ACCESSION VERSION KEYWORDS
12 Similarity 74.98; Pred. No. 2.2e-36; Length 706; 22.2e-36; Similarity 74.98; Pred. No. 2.2e-36; 30; Gaps 3; 320; Conservative 0; Mismatches 77; Indels 30; Gaps 3; 42 ACAACAATCATCTGCCGCAATCCACCAATACCATATCTACCGCAAAACCATT 101 111111 11 11 11 11 11	/Clone_"WHE35Y_DUZ_HU3" /Clone_Ilb="Wheat developing grains cDNA library" /tissue_type="344 days post anthesis seed" /dev_stage="344 days post anthesis seed" /dev_stage="140 days post anthesis fertilizer. /day/night, well-watered, without post-anthesis fertilizer. /day/night, well-watered, without post-anthesis fertilizer. /day/night plus drought, without post-anthesis fertili	Tel: 51055 Fax: 51055 Email: oan Sequences quality se Seq primer 1	The structure and function of the expressed portion of the wheat genomes - Developing grains cDNA library Unpublished (2002) Contact: Olin Anderson Us Department of Agriculture, Agriculture Research Service, Pacific West Area, Western Regional Research Center 800 Buchanan Street, Albany, CA 94710, USA	bread wheat: Triticum aestivum Triticum aestivum Triticum aestivum Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Bermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae ; Triticeae; Triticum. 1 (bases 1 to 706) Altenbach, S., Anderson, O.D., Chao, S., Chin, A., Close, T.J., Cronin K., Crossman, C., Fenton, R.D., Lazo, G.R., Pham, J., Rausch, C.J., Wilson, C. and Woo.	aestivum cDNA clone wHE3557_D02_H03, mRNA sequence. BQ804665 BQ804665.1 GI:22028850

Db	Qy	Db	Qy	Db	Qy	Db	Qy	Db	Qy	Db	Qy	Db	Qy	Db
422 CCAACAA 428	432 TCAACCA 438	362 TCCCCAGCAACCCAACAACCATTCCTCCTGGAATCGCAACAACCATTCCCCCCAGCAACC 421	372 TTTCCAGCAACCACCAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCACC 431	302 ACCCCAACCATTTCCCCAGCCCCAACTACAATTCCCCCCAGCAACCAGAACAAATAAT 361	324 ACCACAACCATTTCCCCCAGCCCCAAGAACCAATTTCAACAAATAAT 371	242 ACCATTTCCCCAGACCCAACAATCTTTCCCTCTGCAACCACAACAACCATTCCCCCAGCA 301	273 ACCATTTCCCCAGCCCCAAGAACCAATTCCCCAACAACCATTCCCCTGGCA 323	182 CCAACAACCACAACCTTTTCCACAGCCGCAACAACCATTTCCCTGGCAACCACAACA 241	213 CCAACAACCACAACAACCTCTTCCTCGGCCCCAACAACATTCCCCCTGGCAACAACCACAACA	122 ATTTACCCAGCCCCAACAACCAACCACCCCCTACAACCACCATCCCCCCC	162 GTTTCCCCAATATCAAATACCAACCACCTACAACCACCACAACCATTCCC 212	62 TCCATCGCAACAACCATTTCCCACACCCCAACCAATTTCCCCAGCAATCACAACAACC 121	102 TCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCCTATCTACCAGGGGAATT 161	2 ACAACAACCATTTCCACAGCAACCATATCCACAACAACCATATCCATCACAGCAACCATA 61

Search completed: May 25, 2003, 20:17:14 Job time : 1666.16 secs

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Gapop 10.0 , Gapext 0.5
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                  AAU38416
AAU01799
AAU34519
                                                                        AAY58500
AAB62331
ABB05621
AAW62647
                                                                                                                                                     AAY54568
AAY96255
                                                                                                                                                                                                                                                                      SUMMARIES
                Amino acid sequenc
Kaposi's sarcoma-a
Mature durum wheat
Salmonella typhi c
Wheat A-gliadin.
                                                                                                                                                                                                            Description
E. coli cellular p
Plant viral moveme
                                                                                                                                  Kaposi's sarcoma-a
HHV8 ORF 73 protei
                                                                                                                                                  A synthetically tr
Kaposi's sarcoma-a
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prosophila metanog	ABB6/404	2.2	9	19.2	1/3.5	Ü
	281	2 3	439	19.2	174	4
Human polypeptide	AAM42085	22	780	9.	7	ū
Human polypeptide	AAM4 0299	22	748	9.	175	2
Rat amelogenin pro	AAY45072	21	194	9.	175	1
Rat amelogenin pro	AAY45073	21	180	9.	177.5	0
Drosophila melanog	ABB67326	22	961	9.	179.5	39
_	AAY92720	21	148	9.	180	8
	AAG13628	21	540	0	8	37
	AAG13629	21	539	0.	182.5	36
	AAG13630	21	522	0.	8	G
Human NF-kB activa	ABP61444	23	371	0	8	4
Human leukocyte ce	AAW64535	19	371	20.3	8	ω
BOP1 protein. Mus	AAW48760	19	667	0.	184	32
Drosophila melanog	ABB71041	22	450	0	184.5	2
Human histidine do	AAB29661	21	1636	20.6	187	ö
ō	AAB29662	21	1583	0	187	9
Human ALP. Homo s	AAW89253	20	1274	0	187	89
Human tyrosine pho	AAB29664	21	1264	0	187	27
	AAB29663	21	1253	0.	187	6
Human ORFX ORF2828	AAB43064	21	987	0	187	5
	AAB12717	21	526	0	187	4
	ABB71695	22	1798	۲.	190	ω
	ABB61046	22	882	1	194	2
Drosophila melanog	ABB70063	22	446		195	ï
-	501	22	757	21.6	196	
	ABB63057	22	2285	_	196.5	9
	ABB59473	22	672	2	200.5	ω
မွ	ABB67093	22	647	2	200.5	7
l human	ABG17438	22	717	Ņ	202.5	9
	Q.	22	1415	2	204	ົທ
	AAB29773	22	1404		204	4
n megakaryoc	AAB60568	22	1404	Ν.	204	ω
Ĥ	AAR26049	13		22.5	204	N
Human EST encoded	AAM24322	22	1299	2	204	_

ALIGNMENTS

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F.L.	H H	FT	FT.	FT	H H	FT	E I	17	FT	FH	XX	SO	SO	XX	ΚW	ΚW	KW	XX	DE	××	ΤŢ	XX	AC	××	ID	AAY
	/note= "encoded by TTT" Misc-difference 114	elicoded by	" noded by	/note= "encoded by TGG"	/note= "encoded by CCC" Misc-difference 107		MISC-Gifference IV3	note= "encoded by CCG"	Misc-difference 20	Key Location/Qualifiers		Synthetic.	Hordeum vulgare.		film; coating; adhesive; building material; packaging material; grain.	noodle; breakfast cereal; snack food; cake; pastry; flour based sauce;	C hordein gene; glutenin; seed storage protein; gluten; bread; pasta;		A synthetically trucated C hordein protein (glutenin).		25-APR-2000 (first entry)		AAY54568;		AAY54568 standard; Protein; 158 AA.	RESULT 1 AAY54568

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Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             are useful for preparing food products such as leavened or unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, pastries and foods containing flour based sauces. Glutenins and seed storage protein are also useful for preparing nonfood products such as films, coatings, adhosives, building materials and packaging materials. Grain or parts of grain containing the modified glutenin and seed storage protein is useful for preparing food products. The modified glutenins and seed storage proteins are also useful as modifiers of food products in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
Misc-difference 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          hordein protein, which is a glutenin. The protein is designated ANG-deltaCys7Cys236, and is modified, according to the method of the invention. The specification describes a method for producing a modified glutenin or seed storage protein, by adding to the protein a domain that confers the ability to incorporate into gluten, or to bind a ligand or other macromolecule. The domain can be any domain that will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Modifying glutenin or seed-storage protein for preparing foodstuffs, films, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200002914-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bind ligands that may be useful in food preparation or in food composition, e.g. a domain that binds lipids or starch. The method is used for producing modified glutenins. Glutenins and seed-storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Appels R, Morell M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            10-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents a synthetically truncated barley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2000-147597/13
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tood industry
121
                                                       121
                                                                                                              61
                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
QQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCIWSMV 158
                                                    QQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCIWSMV 158
                                                                                                                                                                  PTPLOPQOPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFPQQP 120
                                                                                                                                                                                                                            MRQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQ1
                                                                                                                                                                                                                                                                                 MRQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQ1 60
                                                                                                              PTPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPFPQQP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMONWEALTH SCI & IND RES ORG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GOODMAN FIELDER LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                         158 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fig 3; 76pp; English.
                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98AU-0004604
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118
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "encoded by ATT"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "encoded by CCA"
                                                                                                                                                                                                                                                                                                                                                             100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "encoded by CAA"
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                                                                                                                                                                                                                                                                                                                                                                   Score 906; DB 21;
Pred: No. 2.3e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 bу
                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tamas L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       by CAG"
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                                                                                                                                                                                                                                                                                                                                                                                            Length 158;
                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                     Gaps
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망 Qy Вþ Š Db Ş

(RVCAE), thereby providing a tethering function: the KSHV DNA episome is "tied" to the host chromosomes. This allows the viral DNA to persist in the host cell. The present sequence may be used to screen and identify molecules that inhibit LANA interaction with RVCAE, thereby interfering

both human chromosomes and with the rhadino virus cis-acting element

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RESULT 2
AAY96255
ID AAY9
AAY96255 standard; Protein; 1162 AA
                                                               efficient persistence of rhadino virus DNA in mammalian cells. Persistent rhadino virus infection is implicated in a variety of diseases e.g. Kaposi's Sarcoma (KS), Primary Effusion Lymphoma (PEL) and multicentric Castleman's disease. In addition, KS is a common malignancy in HIV patients. KSHV persists in host cells in a latent form. One of the few genes expressed from the latent viral DNA is LANA. LANA associates with
                                                                                                                                               (KSHV) latency-associated nuclear antigen (LANA). KSHV is also known as Human Herpes Virus 8 (HHV8) and belongs to the rhadino virus, or gamma-2 herpes virus class. The LANA protein is necessary for the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kaposi's sarcoma-associated herpesvirus; KSHV; rhadino virus; latency-associated nuclear antigen; LANA; gamma-2 herpes virus; Human herpes virus 8; HHV8; rhadino virus cis-acting element; RVCAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY96255;
                                                                                                                                                                                        The
                                                                                                                                                                                                                 Disclosure; Fig 7; 70pp; English
                                                                                                                                                                                                                                                       Treating or preventing a disease associated with rhodino virus infection in a mammal which includes Kaposi's Sarcoma and Primary
                                                                                                                                                                                                                                                                                                                                        Kieff ED,
                                                                                                                                                                                                                                                                                                                                                                                                                      21-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200029626-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Region
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kaposi's sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      kaposi's sarcoma; primary effusion lymphoma; PEL;
human immunodeficiency virus; HIV; multicentric Castleman's disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kaposi's sarcoma-associated herpesvirus LANA
                                                                                                                                                                                                                                                                                                                                                                              (KIEF/) KIEFF E D.
(BALL/) BALLESTAS M
                                                                                                                                                                                                                                                                                                                                                                                                                                  19-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                       present sequence is the Kaposi's sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                            2000-387829/33.
                                                                                                                                                                                                                                                                                                                                                                  KAYE K M.
                                                                                                                                                                                                                                                                                                  AAA30290
                                                                                                                                                                                                                                            Lymphoma
                                                                                                                                                                                                                                                                                                                                        Ballestas
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99US-0298568
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320..429
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   590..759
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Gln, Glu-rich region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Gln,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Gln, Glu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "acidic repeat region"
                                                                                                                                                                                                                                                                                                                                        Kaye
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Glu,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pro-rich region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Arg-rich region"
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with the latency cycle of this virus. Potential antiviral treatments for the above mentioned diseases may therefore be based on LANA deregulation

may therefore be based on LANA deregulation

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RESULT 3
AAY58500
ID AAY5
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Best Local
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                           invention relates to a novel method of detecting the presence of human herpesvirus 8 in a biological sample using peptides representative of dominant antigenic regions of HHV8. The method comprises contacting one or more isolated, immunogenic HHV8 peptides with an antibody-containing biological sample, and detecting the formation of a complex between the peptide and the antibody. The presence of a peptide-antibody complex indicates the presence of human herpesvirus 8. The detection of HHV8 infection can be used to diagnose AIDS-associated Kaposi's sarcoma. The HHV8-specific antibodies are useful therapeutically when for the passive
                                                                                                                                                                Sequences AAY58480-Y58532 represent immunogenic polypeptides derived from human herpes virus type 8 (HHV8, a gammaherpesvirus). HHV8 play important role in the pathogenesis of AIDS-related Kaposi's sarcoma.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY58500 standard; Protein; 1162 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                               New methods and compositions for the detection of human herpesvirus
                                                                                                                                                                                                                                                                                            WPI; 2000-097142/08
                                                                                                                                                                                                                                                                                                                          Pau CP;
                                                                                                                                                                                                                                                                                                                                                                                    26-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9961909-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human herpesvirus type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    quergen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HHV8; detection; diagnosis; Kaposi's sarcoma; AIDS; immunogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HHV8 ORF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-APR-2000
                                                                                                                                                                                                                                                                                                                                                     (USSH ) US DEPT
immunisation of a human against HHV8 infection, thereby reducing HHV8 related disease. The detection assays are highly specific, sensitive i
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  563 EPQQREPQQ----REPQQREPQQREPQQREPQQQ 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          453 QQQEPQQQEPLQEPQQQEPQQQEPQQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPQQ--PQQIIFQQPQQSYPVQ--PQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IPTPLQPQQPFPQQ--PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ--PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59
                                                                                                                                                                                                                              2; Page 59-62; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73 protein, SEQ ID NO:21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                    98US-0086695
                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US11407
                                                                                                                                                                                                                                                                                                                                                       HEALTH & HUMAN SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= unknown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 262.5; DB 2
Pred. No. 5.9e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --QEPLQEPQQQEPQQQEPLQEPQQQ 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                ннV8 plays
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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AAB62331
ID AAB
XX AAB
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DT 29.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DЬ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Previous assays for HHV8 antibodies such as immunofluorescence assays, immunoblots and enzyme immunosassays lack the sensitivity and accuracy needed for reliable diagnosis of Kaposi's sarcoma. Further advantages of the assays are that reproducible results are obtained and the method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Histone H1; tethering protein; LANA; gene therapy; multiple sclerosis; Parkinson's disease; Huntington disease; diabetes; human herpesvirus 8 KSHV; latency-associated nuclear antigen; LANA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 accurate. Early detection and treatment of Kaposi's sarcoma could diminish the severity of symptoms related to AIDS and the sensitive techniques could reduce erroneous characterisations of skin disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; AAF82901.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200125484-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kaposi's sarcoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Amino acid sequence of KSHV tethering protein LANA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB62331;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAB62331 standard; Protein; 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (UNMI ) UNIV MICHIGAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-SEP-2000; 2000WO-US26908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                is suitable for rapid throughput and screening of samples economically.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       116 FPQQ--PQQIIFQQPQQSYPVQ--PQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Loca<sub>1</sub>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 ROLNPCSOE-LOSPOOSYLOOPYPONPYLPOKPFPVOOPFHTPOOYFPYLPEEL-FPOYO 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001-281736/29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EPOQREPOQ --- REPOQREPOQREPOQREPOQQ 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPTPLQPQQPFPQQ--PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ--PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-0410399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29.0%; Score 262.5; DB 2
46.8%; Pred. No. 5.9e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1162;
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protein and expression vector operationally encoding a protein suitable for tethering the nucleic acid to the histone H1 protein, where the tethering protein is LANA. The composition is useful in aiding the retention of the viral DNA in the host cell. The viral vector encodes a protein suitable for tethering DNA to Histone H1. Wethods for screening for compounds which are agonistic or antagonistic for the tethering of viral proteins to histone H1 and DNA binding sizes are market.

protein

Disclosure; Fig 9B; 60pp; English.

A composition for use in gene therapy comprises an expression vector that includes a nucleic acid sequence encoding a nucleic acid binding protein

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RESULT 5
ABB05621
ID ABB0
XX ABB0
AC ABB0
XX ABB0
DT 25-A
XX Kapo
XX GSHV
KW Gene
XX GSHV
KW Gene
XX Huma
XX Huma
XX Hy
PP 21-A
YX 19-1
YX (KIII
XX Hy
PR 19-1
YX Y
PR 19-1
YX Y
PR 19-1
YX Y
PR 19-1
XX Y
PR 19-1
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
The present invention describes a system (A) for maintaining a plasmid as an episome in mammalian cells, comprising the rhadinoviral sequence LANA (latency-associated nuclear antigen) of 3489 base pairs (see ABA93487, S1) expressed in the cell, and the rhadinoviral sequence RVCAE (rhadinoviral cis-acting element) of 801 base pairs (see ABA93488, S2) present in the plasmid. Also describes is a method for maintaining a closed circular DNA in a cell by expressing (S1) in the cells and having (S2) as a cis-acting and maintenance sequence in the DNA. (A) is particularly used in gene therapy (or other gene transfer applications) that uses mammalian cells in which LANA is expressed. (A) improves
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         developing the method of viral transfer. The composition has applications to gene therapy, including the treatment of multiple sclerosis, Parkinson's disease, Huntington disease and diabetes. The present sequence represents the amino acid sequence of the Kaposi's sarcoma associated herpesvirus (human herpesvirus 8) latency-associated nuclear antigen (LANA), which acts as a tethering protein.
                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 7; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                               gene therapy, comprises rhadinoviral LANA and RVCAE sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                          System for episomal retention of plasmids in mammalian cells, useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-PSDB; ABA93487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (KIEF/) KIEFF E D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       primary effusion lymphoma; latency-associated nuclear antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kaposi's sarcoma-associated herpesvirus; KSHV; LANA; RVCAE; PEL; KSHV terminal repeat; rhadino virus cis acting element; episome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Kaposi's sarcoma-associated herpesvirus LANA protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25-APR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABB05621 standard; Protein; 1162 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   563 EPQQREPQQ---REPQQREPQQREPQQREPQQQ 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   116
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FPQQ---PQQIIFQQPQQSYPVQ--PQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IPTPLQPQQPFPQQ---PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ---PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ballestas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1162 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-109422P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0298568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   transfer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            29.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ΜE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Кауе КМ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               262.5;
No. 5.9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .9e-15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              51;
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20

3 QLNPCSQELQSPQQSYLQQP-----YPQNPYLPQK--

- PFPVQQ-- PF

Gaps

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RESULT 6
AAW62647
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XX
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                Query Match
Best Local :
     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                          The present sequence represents the mature glutenin protein. The DNA sequence encoding this protein is isolated from the genomic DNA of Triticum durum L. The gene codes for a low-molecular-weight glutenin protein and can be used to produce transgenic durum wheat plants with "better quality characteristics" [no details given].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      persistence of gene therapy vectors in cells. The present sequence represents Kaposi's sarcoma-associated herpesvirus (KSHV, also called human herpesvirus 8) LANA protein, which is used in the exemplification of the present invention.
                                                     Sequence
                                                                                                                                                     Claim 8; Page 14; 18pp; French.
                                                                                                                                                                               Durum wheat glutenin gene - coding for glutenin protein of low molecular weight
                                                                                                                                                                                                                                 WPI; 1998-365055/32
                                                                                                                                                                                                                                                         Cardelli LE,
                                                                                                                                                                                                                                                                                (ITUY-) ITAL MIN UNIV RICERCA SCI & TECNOLOGICA.
                                                                                                                                                                                                                                                                                                                                                                                                           Triticum durum
                                                                                                                                                                                                                                                                                                                                                                                                                                   Glutenin gene; durum wh
transgenic durum wheat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mature durum wheat glutenin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW62647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAW62647 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                        19-DEC-1996;
                                                                                                                                                                                                                                                                                                                                   18-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             563 EPQQREPQQ----REPQQREPQQREPQQREPQQQ 597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            453
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FPQQ--PQQIIFQQPQQSYPVQ--PQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IPTPLQPQQPFPQQ--PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ--PQQP 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              80;
                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                      AAV38816
                                                     369 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1162
     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                         D'Ovidio
                                                                                                                                                                                                                                                                                                                                                                                                                                               durum wheat;
                                                                                                                                                                                                                                                                                                          96IT-MI02663
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                28.2%;
41.7%;
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                                                                                                                                                                                                                                                         Marchitelli C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                369 AA
Score 255.5; DB 19;
Pred. No. 7.6e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Low-molecular-weight;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 262.5; DB 2
Pred. No. 5.9e-15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               51;
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    Indels 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1162
                          Length 369;
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    12;
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             Escherichia coll, Staphylococcus aureus, Salmonella typhi, Klebsiella pneumoniae, Pseudomonas aeruginosa and Enterococcus faecalis. The invention is also useful for the identification of potential new targets for antibiotic development. The antisense nucleic acids can also be used to identify proteins used in proliferation, to express these proteins, and to obtain antibodies capable of binding to the expressed proteins. The proteins can be used to screen compounds in rational drug discovery programmes. The antisense nucleic acid sequence is also useful to screen for homologous nucleic acids which are required for cell proliferation in a wide variety of organisms. The present sequence represents an essential prokaryotic cellular proliferation protein.
                                                                                                                                                                                                   prokaryotic cellular proliferation, their use in identifying the genes, their use in the discovery of novel antibiotics, the essentigenes themselves and the encoded proteins. The prokaryotes used are
                                                                                                                                                                                                                                                                                                                                                                                                                                Haselbeck R,
Yamamoto RT,
                                                                                                                                                                                                                                                        The invention relates to antisense inhibitors of genes essential to
                                                                                                                                                                                                                                                                                            Example 3; Seq ID No 14009; 511pp; English.
                                                                                                                                                                                                                                                                                                                            antibiotics, comprise sequences of antisense nucleic acids
                                                                                                                                                                                                                                                                                                                                             New polynucleotides for the identification and development of
                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAS56275.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Salmonella typhi.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                antibiotic; antibacterial; drug design
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antisense; prokaryotic cellular proliferation protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Salmonella typhi cellular proliferation protein #307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU38416;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU38416 standard; Protein; 1362 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ELIT-) ELITRA PHARM INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-FEB-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213 VFLQQQCSPWAM 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             149
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HTPQQYFPYLPEE-LFPQYQIPTPLQPQQPFPQQ----PQQPLPRPQQPFPWQPQ-QPFP 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QPQEPI-PQQPQQPFPQQPQQDFPQQPQQIIFQQPQQSYPVQPQQPFP-----QQPQPVP-148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SQQQQ--PVLPQQPSFSQQQLPPFSQQLPPFSQQQPVLPQQPPFSQQQPPPFSQQLPPFS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQQPCSQQQQPPLSQQQQPPFSQQQQPPFSQQQQPVLPQQPSFSQQQLPPFSQQQQPPF 98
                                                                                                                                                                                                                                                                                                                                                                                                2001-611495/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QQQQPVLPQQP--PFSQQQQQPIP--PQQPPFSQQQQPVLLQQQIPFVHPSILQQLNPCK 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000;
sequence data for this patent did not form part
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-207727P.
2000US-242578P.
2000US-253625P.
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2001US-269308P
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2000US-206848P.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Xu HH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Ohlsen KL,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                wall b,
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RESULT 8
AAU01799
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the printed specification, but was obtained in electronic format directly from WIPO at
                                    peptides are useful for inducing tolerance in an individual and antagonists to the peptides are useful for treating or preventing coeliac disease in an individual and for producing an antibody specific to them or a wild-type sequence. A mutant gliadin protein (or its fragment of 15 amino acids in length) whose wild-type sequence can be modified by transgulutaminase to a sequence that comprises the epitope, but which has been modified in such a way that it does not contain sequence which can been modified in such a way that it does not contain sequence which can be not contain sequence.
                                                                                                                                                                                                                                                                                                                                                   Diagnosing coeliac disease or susceptibility to the disease in an individual, by detecting in vitro or in vivo T cells which bind immunodominant T cell epitope obtained from naturally occurring h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ttp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                         the invention are used to test mammalian (preferably human) susceptibility to coeliac disease (gluten intolerance). The peptides are contacted with a blood sample and T cell recognition measured, a positive T-cell recognition indicating a susceptibility to coeliac disease. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Triticum aestivum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAU01799;
be modified by transglutaminase to a sequence that comprise the epitope is useful for decreasing the ability of gliadin protein to cause Coeliac
                                                                                                                                                                                                                                                       The sequence represents wheat A-gliadin. A-gliadin derived peptides of
                                                                                                                                                                                                                                                                                            Claim 1; Page 52; 107pp; English.
                                                                                                                                                                                                                                                                                                                                    of gliadin
                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-300179/31.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ISIS-) ISIS INNOVATION LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-OCT-2000; 2000WO-GB03760
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                T-cell binding; antagonist; transglutaminase; transgenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wheat; A-gliadin; epitope; coeliac disease; gluten intolerance;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wheat A-gliadin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU01799 standard; protein; 266 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     799 QYQQPQQPVAPQPQYQQPQQPVAPQPQ---YQQPQQ--PVAPQPQYQQPQQPTAPQDSLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               745 VAPQPQYQQPVAPQ----PQYQQPQQPVASQPQYQQPQQPVAPQPQYQ----QPQQPVAPQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           686 ROFAASQQQRYSGEQPAGAQPFSLDDLDFSPMKVLVDEGPHEPLFTPGVMPEST-PVQQP 744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97 OEFIPQOPQOFFP--OOPOOFFPOOPOOIIFOOPOOSYPVOPOOFFPOOPOPVPOOASCI 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40 F-HTPQOYFPYLPEELFPQYQIPTPLQPQQPFPQQPQQPL-PRPQQPFPWQPQQPF-PQP 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCA L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RQLNPCSQELQSPQQSYLQQPY-------PQNP-----YLPQKPFPVQQP 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1362 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hill AVS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99GB-0023306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27.0%;
41.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jewell DP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 244.5; DB 2
Pred. No. 2.6e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1362;
                                                                                                                                                                                                a positive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                       homolog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11;
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Matches
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                                                                                                                                                                                                                                                                                                                                                        23-OCT-2000;
27-NOV-2000;
22-DEC-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease. Nucleic acids encoding proteins antagonistic to the T-cell binding of the epitopes are useful for obtaining a transgenic plant cell or seed and for the production of a protein. The resultant crop plant is useful for obtaining a product of a wheat plant, especially grain, which is optionally processed into flour or another grain product. Food comprising the antagonistic protein is useful instead of a wild-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2000;
23-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21-MAR-2001; 2001WO-US09180.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              E. coli cellular proliferation protein #100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAU34519;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
Example 3; Seq ID No 10112; 511pp; English
                                                                                                                                                                                                       Haselbeck R, Yamamoto RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200170955-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        antibiotic; antibacterial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Antisense; prokaryotic cellular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-FEB-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU34519 standard; Protein; 1329 AA
                                               antibiotics, comprise sequences of antisense nucleic acids
                                                                      New polynucleotides for the identification and development of
                                                                                                                              N-PSDB; AAS52378
                                                                                                                                                                                                                                                                                (ELIT-) ELITRA PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 179 IILHQQQKQQQPSSQVSFQQPLQQYPLGQGSTRPSQQNPQAQGSVQPQQLPQ 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                119 LQQQLIPCMDVVLQQHNIAHARSQVLQQSTYQLLQELCCQHLWQIPEQSQCQAIHNVVHA 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     64 PQLPYP-QPQS-FP--PQQPYPQPQPQYS-QPQQPISQQQAQQQQQQQQQQQQQQQQQILQQI 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 QLNPCSQELQSPQQS---YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---- PQQPFPQQP-QQIIFQQPQQSYPV-----QPQQPFPQ-----QPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     YQIPTPLQPQQPFPQQPQLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQ----- 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QLQPQNPSQQQPQEQVPLVQQQQFPGQQQQFPPQQPYPQPQPFPSQQ----PYLQLQPFPQ 63
                                                                                                                                                    2001-611495/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            266 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                      2000US-207727P.
2000US-242578P.
2000US-253625P.
2000US-257931P.
                                                                                                                                                                                                                                                                                                                                  2001US-269308P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000US-191078P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2000US-206848P
                                                                                                                                                                                                       Ohlsen KL,
Xu HH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25.8%;
                                                                                                                                                                                                                             Zyskind JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 234; DB 22;
Pred. No. 4.2e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        proliferation protein;
design.
                                                                                                                                                                                                                                Wall D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50;
                                                                                                                                                                                                                                Trawick JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 266;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94;
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Novel viral movement polypeptides and polynucleotides useful in field of plant molecular biology, for producing transgenic plants, to preparantibodies and in immunological screening of cDNA expression libraries

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to identify proteins used in proliferation, to express these proteins, and to obtain antibodies capable of binding to the expressed proteins. The proteins can be used to screen compounds in rational drug discovery programmes. The antisense nucleic acid sequence is also useful to screen for homologous nucleic acids which are required for cell proliferation in a wide variety of organisms. The present sequence represents an essential prokaryotic cellular proliferation protein. Mote: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to antisense inhibitors of genes essential to prokaryotic cellular proliferation, their use in identifying the genes, their use in the discovery of novel antibotics, the essential genes themselves and the encoded proteins. The prokaryotes used are Escherichia coll, Staphylococcus aureus, Salmonella typhi, Klebsiella pneumoniae, Pseudomonas aeruginosa and Enterococcus faecalis. The invention is also useful for the identification of potential new targets for antibiotic development. The antisense nucleic acids can also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                       N-PSDB; AAC79353
                                                                                                                                                                                                                 07-APR-1999;
                                                                                                                                                                                                                                                     06-APR-2000; 2000WO-US09110.
                                                                                                                                                                                                                                                                                                                                                                                               viral resistance; cosuppression
                                                                                                                                                                                                                                                                                                                                                                                                                 Plant viral movement protein; transport; transgenic plant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plant viral movement protein SEQ ID 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-FEB-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAB44499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB44499 standard; Protein; 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                         Krebbers E,
                                                                                                                                                                             (DUPO ) DU PONT DE NEMOURS & CO
                                                                                                                                                                                                                                                                                                                           WO200060088-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      109 PQQPQQPFPQQPQQI----IFQQPQQSYPV-QPQQPFP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        747 ΑΡΩΩΩΥΩΩΡΩΩΡΥΡΡΩΡΩΥΩΩΡΩΩΡΥΑΡΩΡΟΥΩΩΡΩΩΡΥΑΡΩΩΥΩΩΡΩΩΡΥ--ΑΡΩΩΩΥ 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                689 QFAQTQQQRYSGEQPAGANPFSLDDFEFSPMKALLDDGPHEPLFTPIVEPVQQPQQ~-PV 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50 LPEELFPQYQIPTPLQPQQPFPQQPQQPLPRPQQP~FPWQPQQPFPQPQEPIPQQPQQPF 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9 QELQSPQQSYL-QQPYPQNPYL-------PQKPF--PVQQPFHTPQQYFPY 49
                                                                                                       2000-638467/61.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -QQPQQPVAPQPQDTLLHPLLMRNGDSRPLHKPTTPLP 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1329 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                         Weng Z,
                                                                                                                                                                                                                 99US-0128092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24.0%;
                                                                                                                                             Cahoon RE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 217; DB 22;
Pred. No. 6.7e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51;
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RESULT 11
AAM24322
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    P11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              encoding the plant viral movement proteins are useful for positive selection of a transformed cell. The proteins are useful in the field of plant molecular biology, and in the preparation of antibodies against the proteins. The proteins are also useful for isolating cDNAs and genes encoding homologous proteins from the same or other plant species, and to create transgenic plants in which the protein is presented at higher or lower levels than normal or in cell types or developmental stages in which they are not normally found. The proteins and nucleotide sequences may be used to control cosuppression and engineer plant virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polynucleotide sequences AAC79348-C79375 encode plant viral movement proteins AAB44494-B44520. Some plant viruses have been shown to be able to establish systemic infections via movement proteins that utilise existing plant pathways to traffic macromolecules to surrounding cells. Proteins such as those of the invention are similar to viral movement proteins that function in the transport of nucleic acids from cell to cell. The plant viral movement proteins are useful for obtaining a nucleic acid fragment encoding a viral movement protein. Polynucleotides
                                                                                                                                                                                                                                                                                                                                              tomato; monkey; dog; sea urchin; expressed sequence tag; E. diagnostics; forensic test; gene mapping; genetic disorder biodiversity; gene therapy; nutrition.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 10; Page 40-41; 62pp; English.
Tang YT, Liu C, Z. Cao Y, Drmanac RA,
                                                                                            25-JAN-2000; 2000US-0491404.
17-JUL-2000; 2000US-0617746.
03-AUG-2000; 2000US-0631451.
15-SEP-2000; 2000US-0663870
                                                                                                                                                                                                                                   02-AUG-2001.
                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                       Human; sheep; pig; cow; fruit fly; yeast; hamster; macaque; horse;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Human EST encoded protein SEQ ID NO: 1847.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAM24322;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAM24322 standard; Protein; 1299 AA
                                                                                                                                                                                             25-JAN-2001; 2001WO-US02687
                                                                                                                                                                                                                                                                         WO200154477-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-OCT-2001 (first entry)
                                                        (HYSE-) HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                259 PKPQGQPYPPQPQGQPYPPQPYGQTYPPPPKGQPTYPPAPYPSTYPPAP 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  102 QQPQ-QPFPQQPQ-QPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140 STTHSVLPVPVPAVPYAAPSPSYALPPAGYPAVPPYQSYPASHVPAPYPTSAYPHPPPSL 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200 LARDVEHAAYPPTSTTYPPQPYPPQPQGQTYPPQPQGETYQPQPQRETYP-PQPQVQPYP 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                55 FPQ-----YQIPTPLQPQQPFPQQPQ-----QPLPRPQQPFPWQPQQPFPQPQ-EPIP 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13 SPQQSYLQQPYPQNPY------LPQKPFPVQQPF-----HTPQQY----FPYLPEEL 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           308 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                  Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23.5%; Score 213; DB 21; 33.7%; Pred. No. 3.4e-11; tive 15; Mismatches 63;
Zhang
                  Qian XB,
    Werhman
                  Wang Z,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63;
                     Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 308;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                     æ
                     Asundi V;
                                                                                                                                                                                                                                                                                                                                                                                         EST;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34;
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AAR26049
                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention provides the protein and coding sequences of novel proteins from a variety of organisms, including human, dog, cat, horse, cow, pig, hamster, monkey, macaque, yeast, bacteria, fruit fly, sea urchin and tomato. These were derived from expressed sequence tags (ESTs from the organism of interest. They can be used in diagnostics, forensics, gene mapping, identification of mutations, to assess biodiversity and for nutritional purposes. The present sequence is a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                           Region
                                                                                                                                                                                                                                                                                                          Megakaryocyte colony stimulating factor; secretion signal; meg-CSF stability; proteolytic cleavage; adhesion; alternative splicing.
                                                                                                                                                                                                                                                                                                                                                MSF precursor
                                                                                                                                                                                                                                                                                                                                                                           02-FEB-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                     AAR26049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 20: Page 1198-1201; 1275pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibodies and research use -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolated polypeptide for treatment of diseases, diagnostics, raising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAH98981.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-476164/51.
                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                              AAR26049 standard;
        Region
                                                           Region
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                                                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              506 PAPTTTKEPSPTTPKEPAP 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                446 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFF 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1299 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
        /label=
1266..1
                                                             1166
                                                                                                                007
                                                                                                                                                                 /label= Exon_III
107..157
                                                                                                   /label=
                                                                                                                                        /label= Exon_IV
157..200
                                                                                                                                                                                                                               /label= Exon_I
                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                         /label=
                                                                                                                          /label=
                                                                                                                                                                                                    /label= Exon_II
                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  22.5%;
                                                                                                              1141
                                                           1- Exon_VII
.1212
                                                                                                                          Exon_V
                  Exon_IX
                                              Exon_VIII
                                                                                                Exon_VI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 204; DB 22;
Pred. No. 9.1e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 1299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                              C classical mammalian protein secretion signal sequence. The sequence of classical mammalian protein secretion signal sequence. The sequence of classical mammalian protein secretion signal sequence. The sequence of cerminate in the region between amino acid residues 134 - 147. The content to the residue of this gene may be cleaved in different ways to content to the factor and the stability, folding and processing of the factor and content of the factor and content of the content of the security of the factor and content of the resulting factor, ie. one or more of these exons may contain the resulting reactor, ie. one or more of these exons may contain concurring and non-naturally occurring MSF's may be characterised by various combinations of alternatively spliced exons from this sequence, with the exons spliced together in differing orders to form different or mambers of the MSF family.
                                                                                                                                                                                                                                                        Query Match
Best Local :
                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The sequence given is a full length translation from the megakaryocyte stimulating factor (MSF) precursor. The sequence covered by exons II, III and IV encodes megakaryocyte stimulating factor (MSF). This sequence is modified by the addition of an N-terminal sequence encoding a secretory leader, an initiating methionine proceeding exon II and a terminating codon following exon IV. The CDNA sequence given contains sequences derived from human megakaryocyte colony stimulating factor (meg-CSF). Exon I contains the initiating methionine, and encodes a classical mammalian motoric secretics fairs between the codes as
                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1, 2 and 3; Fig 1; 87pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human mega-karyocyte stimulating factors - for immune deficiencies, cancer, exposure to radiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JAN-1992;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Region
                                                                                                                                                                                                                                                                                                                                                    members of the MSF family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bacterial and viral infections, etc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1992-284660/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (GEMY ) GENETICS INST INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10-SEP-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JAN-1991;
                                                                        446 TTPKEPAPTTPKEPAPTTKEPAPTTEKEPAPTAPKKPAPTTPKEPAPTTPKE 505
506 PAPTTTKEPSPTTPKEPAP 524
                                  131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                      394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 445
                                                                                                                                                                                          12 QSPQQSYLQQPYPQNPYLPQKPFPYQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                           QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                   42;
                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                1404 AA;
                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91US-0643502
91US-0757022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92WO-US00433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= Exon_XI
1373..1404
/label= Exon_XII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1331..1373
                                                                                                                                                                                                                                                    22,5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hewick RM,
                                                                                                                                                                                                                                   28;
                                                                                                                                                                                                                                 Score 204; DB 13;
Pred. No. 9.8e-10;
8; Mismatches 59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jacobs K,
                                                                                                                                                                                                                                   59;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Turner K;
                                                                                                                                                                                                                                                                     Length 1404;
                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treating or drugs,
                                                                                                                                                                                                                                 10;
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RESULT 13

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AAB60568

AC AAB6

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AC AAB6

XX

DT 27-A

DT 27-A

WWW Human

XX

Human

XX

KW Human

XX

KW Ghrc

KW Ghrc

XX

XX

OS Homc

XX

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                                                                                                                              Дb
                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to a method of treating osteoarthritis via the administration of a composition comprising the camplodactyly-arthropathy-coxa vara-pericarditis (CACP) protein.

The composition may further comprise a local anaesthetic. The composition of the invention may be administered via intra-articular or intravenous injection. The human CACP protein is identified in the invention as being megakaryocyte stimulating factor (MSF). The gene encoding CACP protein (MSF) is located on chromosome 1q25-31, and mutations in this gene are responsible for the heritable disorder camptodactyly-arthropathy-coxa vara-pericarditis, in which patients have synovial hyperplasia without evidence of inflammation. CACP protein (MSF) acts as a synovium lubricant, and can be used to lubricate tissue and joints in the treatment of osteoarthritis. The composition may be
                                                                                                                                                                                                                                                                                                                                                                                                 applied to reduce the symptoms of osteoarthritis (e.g., joint pain, loss of range of movement or joint damage). The present sequence represents human megakaryocyte stimulating factor (MSF, CACP protein).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New composition comprising the camptodactyly-arthropathy-coxa vara-pericarditis protein in combination with an anesthetic, utreating osteoarthritis, or as lubricants of tissue and joints
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; CACP protein; camptodactyly-arthropathy-coxa vara-pericarditis; MSF; megakaryocyte stimulating factor; synovial lubricant; chromosome 1q25-31; osteoarthritis; joint lubrication; osteopathic;
                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB60568 standard; Protein; 1404 AA
                                                                                                                                                                                                                                                                                                                                       sequence was therefore obtained from GenBank (U70316).
                                                                                                                                                                                                                                                                                                                                                                 specification,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page -; 34pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-182721/18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-JUL-2000; 2000US-0145328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21-JUL-2000; 2000WO-US20002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200107068-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antiarthritic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human megakaryocyte stimulating factor (MSF, CACP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB60568;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (UYCA-) UNIV CASE WESTERN RESERVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
131 SYPVQPQQPFPQQP-QPVP 148
                                           446 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 505
                                                                                                                           394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 445
                                                                                    72
                                                                                                                                                                     12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                   Local Similarity
                                                                                  QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPPQQPFPQQPQQIIFQQPQQ 130
                                                                                                                                                                                                                                                                                                                                                       This sequence is not given in its entirety in figure 4 of the fication, although a GenBank accession number was given. This
                                                                                                                                                                                                                                                                                                1404 AA;
                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0145328
                                                                                                                                                                                                                                   22.5%;
                                                                                                                                                                                                              28; Mismatches
                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                   Score 204; DB 22; Pred. No. 9.8e-10;
                                                                                                                                                                                                                                                   Length 1404;
                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       useful for
                                                                                                                                                                                                            Gaps
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506 PAPTTTKEPSPTTPKEPAP 524

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RESULT 14
AAB29773
ID AAB29
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                                                                                                                                                                                                    CC human tribonectin for inhibiting tissue adhesion formation; and a method CC of diagnosing osteoarthritis or a predisposition to osteoarthritis by CC measuring the amount of MSF or its fragment in a biological sample of a mammal, wherein an increased amount of MSF compared to a control CC indicates the presence of or predisposition to developing in the CC treatment of osteoarthritis. The tribonectin and DNA encoding it are useful in the CC treatment of osteoarthritis, where they may be used for lubricating CC mammalian joints, such as articulating joints of humans, dogs or horses. CC The tribonectin, when formulated as a membrane, foam, gel or fibre, is CC useful for inhibiting adhesion between two surfaces such as the injured CC tissues of a mammal, where the injury is caused by a surgical insertion CC or trauma, or an artificial device e.g., an orthopædic implant. In CC particular, one of the surfaces is pericardial tissue. DNA encoding a tribonectin may be used in gene therapy. The present sequence represents
                                                                                              Query Match
Best Local
                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human MSF; megakaryocyte stimulating factor; tribonectin; alternative splicing; joint boundary lubricant; 0-linked oligosaccharide; osteoarthritis; tribosupplementation; tissue adhesion inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 alternative splicing of the human MSF (megakaryocyte stimulating factor) gene. The tribonectin has at least one O-linked oligosaccharide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 7; 47pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel tribonectin polypeptide useful as lubricant for treating osteoarthritis, comprises O-linked lubricating moiety
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200064930-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    osteopathic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human megakaryocyte stimulating factor (MSF), SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAB29773;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB29773 standard; Protein; 1404 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lubricating moiety and has a polypeptide sequence comprising 1-76 repeats of a motif having at least 50% identity to the sequence KEPAPTT (AAB29774). The invention also relates to a nucleic acid encoding a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to a human tribonectin which is a product of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (RHOD-) RHODE ISLAND HOSPITAL LIFESPAN PARTNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-APR-2000; 2000WO-US10953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         friction coefficient reduction; gene therapy; antiarthritic;
394 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 445
                                    12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFF 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2001-024673/03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAC81498
                                                                                              Similarity
                                                                                                                                                          1404 AA;
                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9908-0298970
                                                                                            22.5%;
                                                                             28;
                                                                                              Score 204; DB 22;
Pred. No. 9.8e-10;
                                                                             Mismatches
                                                                             59;
                                                                                                               Length 1404;
                                                                             Indels
                                                                             10;
                                                                             Gaps
                                                                             4;
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405 KEPAPTYTKEPAPTYPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 456

12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71

Query Match
Best Local Similarity
Matches 42; Conserv

Conservative

22.5%; Score 204; DB 22; 30.2%; Pred. No. 9.9e-10;

Length 1415;

10;

Gaps

4;

28; Mismatches

Sequence

1415 AA;

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                                    CC polypeptides and antibodies to the polypeptides are useful for with altered levels of polypeptide. The polypeptides are also useful for continuing the presence of or predisposition to a disease associated cowith altered levels of polypeptide. The polypeptides are also useful for clantifying agents (agonists and antagonists) that bind to them. Cells cexpressing the proteins are useful for identifying a therapeutic agent for use in treatment of a pathology related to aberrant expression or comprising the proteins are also useful for producing the proteins. The proteins dead of the proteins are useful in genetic vaccination, testing and contexpression therapy, and can be used as nutritional supplements. They may be used to therapy, tendon and/or nerve tissue growth or regeneration; compression and contexpression and/or nerve tissue growth or regeneration; compression and/or stimulation; as anti-inflammatory agents; and contexpression and conte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids encoding a range of human polypeptides, useful in genetic vaccination, testing and therapy - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-APR-2000; 2000US-0552929
26-JAN-2001; 2001US-0770160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200179449-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; vaccination; gene therapy; nutritional supplement;
stem cell proliferation; haematopoiesis; nerve tissue regeneration;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to novel human secreted polypeptides. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 20; Page 573; 765pp; English.
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Search completed: May 27, 2003, 14:45:50 Tob time: 52 secs

GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

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Result
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Maximum DB seq length: 2000000000
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Perfect score:
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1: /cgn2_6/ptodata/1

2: /cgn2_6/ptodata/1

3: /cgn2_6/ptodata/1

4: /cgn2_6/ptodata/1

5: /cgn2_6/ptodata/1

6: /cgn2_6/ptodata/1
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US-09-298-568-2
US-08-991-300-2
US-07-757-022B-14
                                                                                                           Sequence 14, Appl
Sequence 74, Appl
Sequence 58, Appl
Sequence 10, Appl
Sequence 42, Appl
Sequence 42, Appl
Sequence 142, Appl
Sequence 50, Appl
Sequence 60, Appl
Sequence 40, Appl
Sequence 62, Appl
Sequence 62, Appl
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Sequence 14,
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15.1	15.2	15.5	15.7	15.7	15.8	15.8	15.8	16.1	16.1	16.1	16.1	16.2	16.2	16.2	16.6	16.9	17.0
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Sequence 5, Appl	Sequence 6, Appl.	Sequence 10, App	2,	Sequence 2, Appl	Patent No. 535	Sequence 23, Appl	Sequence 10, i	Sequence 222, App	•	Sequence 2, Appl:	Sequence 2, A	Sequence 2, Appl	Sequence 7, Appl	Sequence 7, Appl	Sequence 10, Appl	Sequence 20, App	Sequence 2, Appli

ALIGNMENTS

US-08-728-323A-2 RESULT 1 US-08-728-323A-2 Patent No. Sequence 2, Application US/08728323A Patent No. 5948676 Matches Query Match Best Local : INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 1162 amino acids Type: amino acid GENERAL INFORMATION: CLASSIFICATION: 435 ATTORNEY/AGENT INFORMATION: NAME: White, John P. REGISTRATION NUMBER: 28, COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, Version #1.30 REFERENCE/DOCKET NUMBER: 05 TELECOMMUNICATION INFORMATION: 212-278-0400 APPLICANT: Edelman, Isidore APPLICANT: Moore, Patrick S. TITLE OF INVENTION: Immediat TITLE OF INVENTION: SarcomaTITLE OF INVENTION: Encoding MOLECULE TYPE: protein NUMBER OF SEQUENCES: 2 CORRESPONDENCE ADDRESS: APPLICANT: CURRENT APPLICATION DATA APPLICANT: TELEPHONE: 212-391-0525 COUNTRY: U ZIP: 10036 CITY: New York STATE: New Yor TOPOLOGY: FILING DATE: APPLICATION NUMBER: ADDRESSEE: Cooper & Dunham LLP STREET: 1185 Avenue of the Americas Local Similarity es 74; Conserv New York Conservative Bohenzky, Roy A. Russo, James J. Chang, Yuan linear Immediate Early Protein From Kaposi's Sarcoma-Associated Herpesvirus, DNA Encoding Same And Uses Thereof 29.0%; Isidore S. 21 US/08/728,323A 28,678 2 %; Score 262.5; DB 2; %; Pred. No. 5.2e-18; 10; Mismatches 51; 0575/52268/JPW/MSC/SKS Indels 23; Gaps Length 1162;

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2 RQLNPCSQE-LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEEL-FPQYQ 59

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Patent No. 5973225
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CURRENT APPLICATION NUMBER: US/09/298,568
CURRENT FILING DATE: 1999-04-21
CURRENT FILING DATE: 1999-04-21
EARLIER APPLICATION NUMBER: US 60/109,422
EARLIER FILING DATE: 1998-11-19
RUMBER OF SEQ ID NOS: 3
                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: D'OVIDIO, RENATO
APPLICANT: PORCEDDU, ENRICO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Kieff, Elliott D. APPLICANT: Ballestas, Mary E. APPLICANT: Kaye, Kenneth M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: PatentIn Ver. 2.0
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TITLE OF INVENTION: EN
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
  COMPUTER READABLE FORM:
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                                          COUNTRY:
                                                                                    CITY: ARLINGTON
                                                                                                     STREET:
                                                                                                                          ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT ADDRESSEE: P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
nes 74; Conserv
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1755 S. JEFFERSON DAVIS HIGHWAY
                                                                                                                                                                                                          WERCHITELLI, CINZIA
CARDELLI, LUISA ERCOLI
VENTION: ISOLATION AND CHARACTERIZATION OF A GENE
VENTION: ENCODING A LOW MOLECULAR WEIGHT GLUTENIN
                                            USA
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46.8%; Pred. No. 5.2e-18;
46.8%; Armanatches 51; Indels
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US-07-757-022B-14
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TELEFAX: 703-413-220
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 359 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 14, Application US/07757022B Patent No. 6433142 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                          APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M. TITLE OF INVENTION: Megakaryoc; NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DAIL. 800
CLASSIFTCATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: IT MI 96/A 002663
APPLICATION TOTE: 19-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURREMY APPLICATION DATA:
APPLICATION NUMBER: US/07/757,022B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 19-DEC-1996
ATTORNEY/AGENT INFORMATION:
NAME: OBLON, NORMAN F.
REGISTRATION NUMBER: 24,618
REFERENCE/DOCKET NUMBER: 220
                                                                                                     COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      149 --- QQASCIWSM 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              157 QQQQPVLPQQP--PFSQQQQQPIP--PQQPPFSQQQQPVLLQQQIPFVHPSIIQQLNPCK 212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213 VFLQQQCSPWAM 224
                                                                                                                                                                                       STREET: 87 Cambridge
CITY: Cambridge
STATE: Massachus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: FILING DATE: 16-DE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                    COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99 SQQQQ--FVLPQQPSFSQQQLPPFSQQLPPFSQQQPVLPQQPPFSQQQPPPFSQQLPPFS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      41 HTPQQYFFYLPEE-LFPQYQIPTPLQPQQPFPQQ----PQQPLPRPQQPFPWQPQ-QPFP 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39 QQQPCSQQQQPPLSQQQQPPFSQQQQPPFSQQQQPVLPQQPSFSQQQLPPFSQQQQPPF 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Match 28.2%;
Local Similarity 41.7%;
                                                                                                                                                                                                                                                         ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 QLNPCSQELQSPQQSYLQQP------YPQNPYLPQK------PFPVQQ--PF 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QPQEPI-PQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFP-----QQPQPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80;
                                                                                                                                                    02140
                                                                                                                                                                                          Massachusetts
                                                                                                                                                                                                                             87 CambridgePark Drive
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                                                                                                                                                                                                                                                            Genetics Institute, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      UMBER: US/08/991,300
16-DEC-1997
                                                                                                  Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                                                                                                                                                                                               Megakaryocyte Stimulating Factors
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Pred. No. 7.1e-18;
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FILING DATE:

19910910

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US-07-757-022B-84
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 84, Application US/07757022B Patent No. 6433142
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                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: Gesner
APPLICANT: Clark,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (617)876-5851 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 29-JUN-
                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 19910910
                                                                                                                                                   ZIP: 02140
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REGISTRATION NUMBER: 31,822
REFERENCE/DOKKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                          APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M. TITLE OF INVENTION: Megakaryc NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        307 PAPTTTKEPSPTTPKEPAP 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            195 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               247 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 306
                                                                        MEDIUM TYPE: Floppy disk
COMPOTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 QQPQQPLP-RPOQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 0'
FILING DATE: 29-DEC-1989
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CLASSIFICATION:
                                                                                                                                                                                           COUNTRY:
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                                                                                                                                                                          02140
                                                                                                                                                                                                                                  Cambridge
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                                                                                                                                                                                                                                               87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                       Gesner, Thomas G. Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                              Megakaryocyte Stimulating Factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.5%; Score 204; DB 4; Length 941; 30.2%; Pred. No. 2.3e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US 07/390,901
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                                      US/07/757,022B
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RESULT 6
US-07-757-022B-74
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 6433142
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 74, Application US/07757022B Patent No. 6433142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 08-AUG-1989
ATTORNEY_AGENT INFORMATION:
NAME: CSerr, Luann
REGISTRATION NUMBER: 31,82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 1022 amino acids
                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: ME NUMBER OF SEQUENCES: 1 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE: 29-JUN-
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APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
CLASSIFICATION: 530 PRIOR APPLICATION NUMBER:
                                                                                                MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              388 PAPTTTKEPSPTTPKEPAP 406
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            276 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 327
                                                                                                                                                                                                                                                                                    STREET: 87 Cambr
CITY: Cambridge
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        v Match 22.5%; Score 204; DB 4; Length 1022;
Local Similarity 30.2%; Pred. No. 2.5e-12;
nes 42; Conservative 28; Mismatches 59; Indels 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER:
                                                              FILING DATE:
                                                                                                                                                                                                                              ZIP:
                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                    STATE:
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                                                                                APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                  Massachusetts
                                                                                                                                                                                                                                                                                                        87 CambridgePark Drive
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(617)876-5851
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                                            19910910
N: 530
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08-AUG-1989
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                                                                                                                                                                                                                                                                                                                                                                                         Megakaryocyte Stimulating Factors
                                                                                                                                                                                                                                                                                                                                                                       143
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                                                                                   US/07/757,022B
  US 07/643,502
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US-07-757-022B-58

: Sequence 58, Application US/07757022B

: Patent No. 6433142
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Gesner
APPLICANT: Clark,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: GI 5
REFERENCE/DOCKET NUMBER: GI 5
TELECOMMUNICATION: INFORMATION:
TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
TELEFAX: TO NO: 74:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (617)876-585
INFORMATION FOR SEQ ID NO:
             CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION UNMEER: US 07/643.502
FILING DATE: 18-JAN-1991
                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M. TITLE OF INVENTION: Megakaryo NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: protein
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PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     372 PAPTITKEPSPTTPKEPAP 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                312 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 371
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                                                                                               APPLICATION NUMBER: FILING DATE: 19910:
                                                                                                                                                                                                                                                                  2 I P :
                                                                                                                                                                                                                                                                                  COUNTRY:
                                                                                                                                                                                                                                                                                                                       CITY: Cambridge
                                                                                                                                                                                                                                                                                                                                             STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
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REGISTRATION NUMBER: 31,822
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                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                42;
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AMINO ACID
                                                                                                                                                                                                                                                                                                      Massachusetts
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87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gesner, Thomas G. Clark, Stephen C.
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                                                                                               19910910
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08-AUG-1989
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                                                                                                                                                                                                                                                                                                                                                                                                       Megakaryocyte Stimulating Factors 143
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; patent No. 6433142
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APPLICANT: Gesner, Thomas G.

APPLICANT: Clark, Stephen C.

APPLICANT: Turner, Katherine

APPLICANT: Hewick, Rodney M.
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Best Local :
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INFORMATION FOR SEQ ID NO:
                                FILING LA...
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
APPLICATION NUMBER: 18-JAN-1991
               FILING DATE: 18-JAN-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
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REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
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                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                  ZIP:
                                                                                                                                   APPLICATION NUMBER: US
FILING DATE: 19910910
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                                                                                                                                                                                                 SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                         MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                     COUNTRY:
                                                                                                                                                                                                                                                                                                                                       STATE:
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REGISTRATION NUMBER:
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                                                                                                                                                                                                                                                         Floppy disk
29-JUN-1990
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US-07-757-022B-44
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 104:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: protein 7-757-022B-104
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
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APPLICATION NUMBER: US 0:
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION UMBER: US/07/757,022B
FILING DATE: 19910910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Gesner, Thomas G.
APPLICANT: Clark, Stephen C.
APPLICANT: Turner, Katherine
APPLICANT: Hewick, Rodney M.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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APPLICATION NUMBER:
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PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                            PRIOR APPLICATION DATA:
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REGISTRATION NUMBER: 31,822
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STREET: 8
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                                     APPLICATION NUMBER: US 0 FILING DATE: 29-JUN-1990
                                                                                                                                                               CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                  Massachusetts
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US 07/457,196
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Pred. No. 2.9e-12;
Ps; Mismatches 59; Indels 1
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US-07-757-022B-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. 6433142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 42; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 4.
SEQUENCE CHARACTERISTICS:
LENGTH: 1270 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
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                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
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PRIOR APPLICATION NUMBER: US 07/390,901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine
                                                                                   CLASSIFICATION: 530
PRIOR APPLICATION UMBER: US 07/643,502
FILLING DATE: 18-JAN-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
PRIOR APPLICATION DATA:
                                                     PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 SYPVQPQQPFPQQP-QPVP 148
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REGISTRATION NUMBER:
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                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE: 19910
                                                                                                                                                                                                                                                                                                                                             ZIP: 02140
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             APPLICATION NUMBER: US 07/457,196 FILING DATE: 29-DEC-1989
                                                                       FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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                                                                         29-JUN-1990
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                                                                                                                                                                                                                                                          Release #1.0, Version #1.25
                                                                                                                                                                                                                    US/07/757,022B
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8; Pred. No. 3.2e-12;
28; Mismatches 59; Indels 1
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RESULT 11
US-07-757-022B-142
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                 APPLICATION NUMBER: US 07/546,114 FILING DATE: 29-JUN-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07/757,022B
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LENGTH: 1311 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Hewick, Rodney M.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
NUMBER OF SEQUENCES: 143
                                     PRIOR APPLICATION DATA:
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                                                              APPLICATION NUMBER: FILING DATE: 29-DEC
                                                                                                                                                                                    APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Cambridge
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  FILING DATE:
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                      APPLICATION NUMBER:
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JMBER: US 07/390,901
08-AUG-1989
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08-AUG-1989
                                                            29-DEC-1989
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                                                                             US 07/457,196
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RESULT 12
US-07-757-022B-50
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Patent No. 6433142
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CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
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APPLICANT: Clark,
APPLICANT: Turner,
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LENGTH: 1313 amino acids
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TELEFAX: (617)876-5851
                                                                                                             APPLICATION NUMBER: US 0: FILING DATE: 29-JUN-1990 PRIOR APPLICATION DATA:
                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18 - JAN-1991
PRIOR APPLICATION DATA:
ATTORNEY/AGENT INFORMATION:
                                                      PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                      FILING DATE: 1
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                  APPLICATION NUMBER: FILING DATE: 08-AU
                                                                           APPLICATION NUMBER: FILING DATE: 29-DEC
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REFERENCE/DOCKET NUMBER: GI
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VENTION: Megakaryocyte Stimulating Factors
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                     08-AUG-1989
                                                                             29-DEC-1989
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                                     us 07/390,901
                                                                                                                                                     US 07/546,114
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GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 31,822
REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: 19910910
                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine APPLICANT: Hewick, Rodney M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
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                                                                                                                                                                PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                           CLASSIFICATION: 530 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: o.
CTTY: Cambridge
"Seachus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION:
                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                   ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                        APPLICATION NUMBER: US 0 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM:
SOFTWARE: Patenti
                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 QQPQQPLP-RPQQPFPWQPQQPFPQPPQEPIPQQPQQPFPQQPPQQIIFQQPQQ 130
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                                                                                                                             APPLICATION NUMBER: FILING DATE: 29-DE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                NAME: Cserr, Luann REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE:
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REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      46, Application US/07757022B
o. 6433142
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                                                                                                                                                                                                                                                                                                                                                                                          IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Genetics Institute, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (617)876-1170
                                                                          08-AUG-1989
                                                                                                                               29-DEC-1989
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                                                                                        US 07/390,901
                                                                                                                                                  us 07/457,196
                                                                                                                                                                                                                                                             US 07/643,502
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                31,822
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1; Pred. No. 3.3e-12;
28; Mismatches 59; Indels 10
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  GI 5190
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US-07-757-022B-60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 60, Application US/07757022B Patent No. 6433142
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Matches 42; Conserv
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TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO: 46:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCTWARE: PatenLIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                              FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
NAME: Cserr, Luann
                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 29-JUN-1990
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Hewick, Rodney M.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 QOPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                   APPLICATION NUMBER: US 07/457,196 FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: FILING DATE: 18-JA
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                                                                                                                      APPLICATION NUMBER: US 07/390,901 FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                          NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
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18-JAN-1991
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Pred. No. 3.4e-12;
28; Mismatches 59; Indels 1
                                          GI 5190
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RESULT 15
US-07-757-022B-48
; Sequence 48, Application US/07757022B
----nt No. 6433142
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TELEFAX: (617)876-585: INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (617)876-5851
INFORMATION FOR SEQ ID NO:
                                                                                                                                           PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                                                                                     FILING DATE: 19910910
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION UNMER: US 07/643,502
FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE: Floppy disk
COMPUTER: IDM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Gesner, Thomas G. APPLICANT: Clark, Stephen C. APPLICANT: Turner, Katherine
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LENGTH: 1320 amino aci
                 REFERENCE/DOCKET NUMBER: GI
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEPHAX: (617)876-5851
                                                                                                                                  APPLICATION NUMBER: US 0 FILING DATE: 08-AUG-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
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                                                                                         NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
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                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER:
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AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Massachusetts
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87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hewick, Rodney M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.5%; Score 204; DB 4; Length 1320; 30.2%; Pred. No. 3.4e-12; Indels 1
                                                                                                                                                                                                                                                                                                                                                                                                                                       US/07/757,022B
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 1354 amino acids
TYPE: AMINO ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: AMINO ACID
TOPOLOGY: linear
MOLECULE TYPE: protein
456 PAPTITKEPSPTTPKEPAP 474
                                               131 SYPVQPQQPFPQQP-QPVP 148
                                                                                                          396 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 455
                                                                                                                                                                                                                 344 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 395
                                                                                                                                                                                                                                                                12 QSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                               / Match 22.5%; Score 204; DB 4; Length 1354;
Local Similarity 30.2%; Pred. No. 3.5e-12;
nes 42; Conservative 28; Mismatches 59; Indels 10;
                                                                                                                                                         72 QOPQOPLP-RPQOPEPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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Search completed: May 27, 2003, 14:48:11 Job time : 26 secs

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Result
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                   Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Published_Applications_AA:*

1: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US00_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US00_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaa/US00_PUBCOMB.pep:*
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      GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
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   10 US-09-815-242-14009
9 US-09-789-054A-10
10 US-09-789-054A-10
110 US-09-789-155-242-10112
12 US-10-124-557-14
12 US-10-124-557-74
12 US-10-124-557-44
12 US-10-124-557-44
12 US-10-124-557-42
12 US-10-124-557-42
12 US-10-124-557-46
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16 US-10-124-557-62
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Sequence 14009, A
Sequence 10, Appl
Sequence 11, Appl
Sequence 14, Appl
Sequence 74, Appl
Sequence 74, Appl
Sequence 44, Appl
Sequence 42, Appl
Sequence 42, Appl
Sequence 50, Appl
Sequence 60, Appl
Sequence 64, Appl
Sequence 64, Appl
Sequence 64, Appl
Sequence 68, Appl
Sequence 69, Appl
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150.5	151	151	152	153	154	155.5	156	156	156	156.5	156.5	157	157.5	157.5	161.5		164.5	167.5	167.5	171.5	180	183.5	183.5	187	189
16.6	16.7	16.7	16.8	16.9	17.0	17.2	17.2	17.2	17.2	17.3	17.3	17.3	17.4	17.4	17.8	18.0	18.2	18.5	18.5	18.9	19.9	20.3	20.3	20.6	20.9
356	921	868	668	666	407	370	370	370	370	2063	2005	348	865	199	340	503	171	171	171	254	148	371	371	1274	312
10	10	10	10	10	9	9	9	9	9	10	10	9	9	9	9	12	9	10	10	10	12	ø	9	ø	9
US-09-735-367B-13	US-09-800-729-199	US-09-800-729-106	US-09-925-300-1633	US-09-791-171-70	US-09-738-626-5433	US-10-021-955-91	US-10-021-955-90	US-10-021-955-83	US-10-021-955-78		US-09-735-367B-3	US-09-789-054A-20	US-09-957-995A-19	US-10-034-934-125	US-09-789-054A-6	US-10-062-254-240	US-10-077-584-4	US-09-216-393-274	US-09-216-393-71	us-09-216-393-126	US-10-117-121-1	US-10-197-666A-4	US-09-284-320-2	US-10-020-215-2	US-09-789-054A-22
Sequence 13, Appl	Sequence 199, App	Sequence 106, App	Sequence 1633, Ap	Sequence 70, Appl	Sequence 5433, Ap	Sequence 91, Appl	90,	Sequence 83, Appl	Sequence 78, Appl	'n	Sequence 3, Appli		Seguence 19, Appl	Sequence 125, App	Sequence 6, Appli	Sequence 240, App	Sequence 4, Appli	Sequence 274, App	71,	Sequence 126, App	Sequence 1, Appli	Sequence 4, Appli	Sequence 2, Appli	Sequence 2, Appli	Sequence 22, Appl

ALIGNMENTS

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OTHER INFORMATION: Xaa = Any Amino Acid	NAME/KEY: VARIANT		ORGANISM: Salmonella typhi	TYPE: PRT	LENGTH: 1362	SEQ ID NO 14009	SOFTWARE: FastSEQ for Windows Version 4.0	NUMBER OF SEQ ID NOS: 14110	PRIOR FILING DATE: 2001-02-16	PRIOR APPLICATION NUMBER: 50/269,308	PRIOR FILING DATE: 2000-12-22	PRIOR APPLICATION NUMBER: 60/257,931	PRIOR FILING DATE: 2000-11-27	z	PRIOR FILING DATE: 2000-10-23	PRIOR APPLICATION NUMBER: 60/242,578	PRIOR FILING DATE: 2000-05-26	PRIOR APPLICATION NUMBER: 60/207,727	FILING DATE		FILING DATE: 2000-03		FILING DATE: 2001-0	CURRENT APPLICATION NUMBER: US/09/815,242	E2	OF INVENTION: Prokaryotes	TITLE OF INVENTION: Identification of Essential Genes in	: Xu, H. Howard		: Carr, Grant J.	APPLICANT: Trawick, John D.	APPLICANT: Wall, Daniel	APPLICANT: Zyskind, Judith W.	APPLICANT: Ohlsen, Kari L.	APPLICANT: Haselbeck, Robert	GENERAL INFORMATION:	Patent No. US20020061569Al	Sequence 14009, Application US/09815242	US-09-815-242-14009

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Sequence 10112, Application US/09815242
Patent No. US20020061569A1
GENERAL INFORMATION:
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SEQ ID NO 10
LENGTH: 296
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FILE REFERENCE: BB1107 US CIP
CURRENT APPLICATION NUMBER: US/09/789,054A
CURRENT FILING DATE: 2001-02-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Allen, Sta
APPLICANT: Zhu, Qun
  APPLICANT:
                                       APPLICANT:
                                                              APPLICANT:
                                                                                  APPLICANT:
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PRIOR FILING DATE: 1997-08-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: PCT/US98/16688 PRIOR FILING DATE: 1998-08-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT FILING DATE: 2001-02-20 PRIOR APPLICATION NUMBER: 09/485558
                                                                                                     APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Oryza sativa
                                                                                                                                                                                                                                                                                                                                                                                                                                    143 PKEPEPEAQQQTQ-QPPQPQLHPQPQQPLQPQLQLH-PQ------PQQQ-PSQLH 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           799 QYQQPQQPVAPQPQYQQPQQPVAPQPQ---YQQPQQ--PVAPQPQYQQPQQPTAPQDSLI 853
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                                                                                                                                                                                                                                                                 249 LQLQSQLHPQPQQPPQLQPQPQLHQQPQP 277
                                                                                                                                                                                                                                                                                                          118 QQPQQIIFQQPQQSYPVQPQQPFPQQPQP 146
                                                                                                                                                                                                                                                                                                                                                    189 PQQLLHPQSQQTPQPQPQVHPQPQQQPPQLQPQPQLLQQPQLPQQLQPQSQLPPQPQQPPQ 248
                                                                                                                                                                                                                                                                                                                                                                                         66 PQQPF-PQQPQQPLPRPQ-QPFPWQPQQPFPQP---QEP-IPQ--QPQQPFPQQPQQPFP 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97 QEPIPQQPQQPFP--QQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQQASCI 154
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Match 27.0%;
Local Similarity 41.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6 PCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQ 65
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Ohlsen, Kari L.
Zyskind, Judith
Wall, Daniel
Trawick, John C
                                                                                                     Haselbeck, Robert
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No. US20020184659A1
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                    John D.
                                                           Judith W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24.5%; Score 222; DB 9 43.6%; Pred. No. 9e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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US-09-815-242-10112
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US-10-124-557-14
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LENGTH: 1329
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Best Local :
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                                                                                                                                                                COUNTRY: U.S.A.
ZIP: 02140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xu, H. Howard
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Sequence 14, Application US/10124557 Patent No. US20020137894A1 GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/253,625
PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR FILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: 60/269,308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/207,727
PRIOR FILING DATE: 2000-05-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/191,078
PRIOR FILING DATE: 2000-03-21
PRIOR APPLICATION UNMBER: 60/206,848
PRIOR FILING DATE: 2000-05-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Identification of Essential Genes in TITLE OF INVENTION: Prokaryotes FILE REFERENCE: ELITRA.011A CURRENT APPLICATION NUMBER: US/09/815,242 CURRENT FILING DATE: 2001-03-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2001-02-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/242,578 PRIOR FILING DATE: 2000-10-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    805 -QQPQQPVAPQPQDTLLHPLLMRNGDSRPLHKPTTPLP 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         109 PQQPQQPFPQQPQQI----IFQQPQQSYPV-QPQQPFP 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              747 APQQQTQQPQQPVPPQPQTQQPQQPVAPQPQQQPVAPQQQTQQPQQPQPV-APQQQY 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          689 QFAQTQQQRYSGEQPAGANPFSLDDFEFSPMKALLDDGPHEPLFTPIVEPVQQPQQ--PV 746
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9 QELQSPQQSYL-QQPYPQNPYL-------PQKPF--PVQQPFHTPQQYFPY 49
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Ratentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                          ADDRESSEE: Genetics Institute, STREET: 87 CambridgePark Drive CITY: Cambridge
                                                                                                                                                                                                                                                                                    STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hewick, Rodney M. Gesner, Thomas G.
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Pred. No. 8.9e-09;
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LENGTH: 941 amino acids
; TYPE: amino acid
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-10-124-557-14
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US-10-124-557-84
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TELEPHONE: (617)876-1170
TELEPAY: (617)876-5851
INFORMATION FOR SEQ ID NO: 14:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307 PAPTTTKEPSPTTPKEPAP 325
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          247 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           195 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-LAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY,AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72 OQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                            COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/124,557

FILING DATE: 16-Apr-2002

CLASSIFICATION: -CURNOWN-

PRIOR APPLICATION DATA:

PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143\,
                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Turner, Katherine Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
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REGISTRATION NUMBER: 31,822
REFERENCE/DOCKET NUMBER: GI 5190
                                                                                                                                                                                                                                                                                                       ADDRESSEE: Genetics Institute, Inc. STREET: 87 CambridgePark Drive CITY: Cambridge STATE: Massachusetts COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown>
        APPLICATION NUMBER: US 07/643,502
                                                                                                                                                                                                                                                                                   ZIP: 02140
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Hewick, Rodney M.
Gesner, Thomas G.
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; SEQUENCE DESCRIPTION: SEQ ID NO: 84:
US-10-124-557-84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 74, Application US/10124557 Patent No. US20020137894A1 GENERAL INFORMATION:
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REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION:
TELEPHONE: (617)876-1170
TELEPHONE: (617)876-851
INFORMATION FOR SEQ ID NO: 84
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    131 SYPVQPQQPFPQQP-QPVP 148
APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: -CUNKNOWN>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    388 PAPTITKEPSPTTPKEPAP 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    328 TTPKEPAPTTPKEPTPTTPKEPAPTTKEPAPTTPKEPAPTAPKKPAPTTPKEPAPTTPKE 387
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APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143\,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Turner, Katherine
Clark, Stephen C.
                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                      CITY: Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Genetics Institute, Inc. STREET: 87 CambridgePark Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1022 amino acids
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                                                                                                                                                                                                                                                                                                                                                                  02140
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Hewick, Rodney M.
Gesner, Thomas G.
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RESULT 7
US-10-124-557-58
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TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 74:
US-10-124-557-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1999
ATTORNEY_AGENT INFORMATION:
NAME: CSETY, LUANN
REGISTRATION NUMBER: 31,822
REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHOME: (617)876-1170
TELEPHOME: (617)876-5851
INFORMATION FOR SEQ ID NO: 74:
SEQUENCE CHARROTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 58, Application US/10124557 Patent No. US20020137894A1 GENERAL INFORMATION:
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                   APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: «Unknown»
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Turner, Katherine
Clark, Stephen C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Cambridge
STATE: Massachusetts
                                                                    APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
     APPLICATION NUMBER: US 07/390,901
                             APPLICATION NUMBER: US 07/457,196 FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Genetics Institute, Inc
STREET: 87 CambridgePark Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 1038 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jacobs, Kenneth
Hewick, Rodney M.
Gesner, Thomas G.
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US-10-124-557-104
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ATTORNEY/AGENT INFORMATION:
NAME: CSETY LUANN
REGISTRATION NUMBER: 31,822
REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-5851
INFORMATION FOR SEO ID NO: 58:
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                                                                                                                                 CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
FILING DATE: 16-Apr-2002
CLASSIFICATION: <Inknown>
PRIOR APPLICATION DATA: US 07/643,502
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/346,114
FILING DATE: 29-JUN-1990
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nes 42; Conserv
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                     ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
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Clark, Stephen C
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                                       APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STATE: Massachusetts
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NAME: Cserr, Luann
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Hewick, Rodney M.
Gesner, Thomas G.
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RESULT 9
US-10-124-557-44
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SEQUENCE CHARACTERISTICS:
LENGTH: 1140 amino acids
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REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein
                                                                 ATTORNEY/AGENT INFORMATION:
NAME: Cserr, Luann
                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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REFERENCE/DOCKET NUMBER: GI 5190 TELECOMMUNICATION INFORMATION:
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                                                                                                     APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/10/124,557 FILING DATE: 16-Apr-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Cambridge
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                                         NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
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Clark, Stephen C.
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Pred. No. 7.2e-08;
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; SEQUENCE DESCRIPTION: SEQ ID NO: 44: 0S\text{-}10\text{-}124\text{-}557\text{-}44
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Patent NO. US20020137894A1
GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                           APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-UN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: linear MOLECULE TYPE: protein
                     REFERENCE/DOCKET NUMBER: GI 5190
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Turner, Katherine Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
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                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/10/124,557 FILING DATE: 16-Apr-2002 CLASSIFICATION: <Unknown>
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TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 02140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STATE: Massachusetts
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                                                                                                               NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
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Hewick, Rodney M.
Gesner, Thomas G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       U.S.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Katherine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           score 204; DB 12; Length 1270;
pred. No. 8e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      59;
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US-10-124-557-142
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; MOLECULE DESCRIPTION: SEQ ID NO: 42:
US-10-124-557-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Sequence 142, Application US/10124557; Patent No. US20020137894A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                               INFORMATION FOR SEQ ID NO: 142:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 SYPVQPQQPFPQQP-QPVP 148
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 413 PAPTTTKEPSPTTPKEPAP 431
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPPQQPPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25
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LENGTH: 1311 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jacobs, Kenneth
Hewick, Rodney M.
Gesner, Thomas G.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
NUMBER OF SEQUENCES: 143
CORRESPONDENCE ADDRESS:
                                                                              TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
                                            SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION: NAME: Cserr, Luann
                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                         APPLICATION NUMBER: US 07/545,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US 07/643,502 FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: U.S.A.
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TYPE: amino acid
                                                                                                                                                                         REGISTRATION NUMBER: 31,822
                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Genetics Institute, Inc.
                      LENGTH: 1313 amino acids
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Pred. No. 8.3e-08;
8; Mismatches 59;
                                                                                                                                                     GI 5190
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Best Local S
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; MOLECULE TYPE: protein ; SEQUENCE DESCRIPTION: SEQ ID NO: 142: US-10-124-557-142
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                                                                                                                                      INFORMATION FOR SEQ ID NO: 50:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        415 PAPTTTKEPSPTTPKEPAP 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            131 SYPVQPQQPFPQQP-QPVP 148
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                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILING DATE: 08-AUGC-1989
ATTORNEY,AGENT INDORMATION:
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                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: GI 5190 TELECOMMUNICATION INFORMATION: TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
TOPOLOGY: linear MOLECULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Turner, Katherine
Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/10/124,557 FILING DATE: 16-Apr-2002
                                                                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: Massachusetts
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                                                                                     TYPE: amino acid
                                                                                                                LENGTH: 1314 amino acids
                                                                                                                                                                                               TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                                     NAME: Cserr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 46:
US-10-124-557-46
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US-10-124-557-46
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
  Query Match
                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 46: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416 PAPTTTKEPSPTTPKEPAP 434
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   304 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE-----PAPTTPKKPAP 355
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION UNMBER: US 07/643,502
APPLICATION NUMBER: US 07/546,114
APPLICATION NUMBER: US 07/546,114
APPLICATION NUMBER: US 07/457,196
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/390,901 FILING DATE: 08-AUG-1989 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: GI 5190 TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 14 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Megakaryocyte Stimulating Factors NUMBER OF SEQUENCES: 143
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Clark, Stephen C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/10/124,557 FILING DATE: 16-Apr-2002 CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STATE: Massachusetts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CITY: Cambridge
                                                                                                          TYPE: amino acid
                                                                                                                                                                                                                                                                                                         NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.25
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                                                                                                                                                          LENGTH: 1320 amino acids
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                                                                                                                                                                                                                                               TELEPHONE:
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                                                                                                                                                                                                                                               (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genetics Institute, Inc
    22.5%;
  Score 204; DB 12;
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WULLCULE TYPE: protein SEQUENCE DESCRIPTION: SEQ ID NO: US-10-124-557-60
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US-10-124-557-60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Local Similarity 30.2
Matches 42; Conservative
  Best Local Similarity
Matches 42; Conserv
                                      Query Match
                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: 60:
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                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)876-1170
TELEFAX: (617)876-5851
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                             TOPOLOGY: linear MOLECULE TYPE: protei
                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA: •
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LENGTH: 1320 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US 07/643,502
FILLING DATE: 18-JAN-1991
APPLICATION NUMBER: US 07/546,114
FILLING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILLING DATE: 29-DEC-1989
APPLICATION NUMBER: US 07/390,901
FILLING DATE: 08-AUG-1989
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STREET: 87 CambridgePark Drive
CITY: Cambridge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                    TYPE: amino acid
                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: 16-Apr-2002
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                                                                                                                                                                                                                                                                                                                                                              NAME:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/10/124,557
  Conservative
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22.5%; Score 204; DB 12; 30.2%; Pred. No. 8.3e-08; tive 28; Mismatches 59;
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Thomas G.
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8; Mismatches 59;
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                                      Length 1320;
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US-10-124-557-48
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US-10-124-557-48
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Best Local Similarity
Matches 42; Conserv
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                                                                                                                                                                                                                                                                                                               TELEFAX: (617)876-58
INFORMATION FOR SEQ ID NO: 48:
SEQUENCE CHARACTERISTICS:
344 KEPAPTTTKEPAPTTPKEP-APTTTKEPAPTTTKSAPTTPKE------PAPTTPKKPAP 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   422 PAPTTTKEPSPTTPKEPAP 440
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                                           12 QSPQQSYLQQFYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFP 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 QQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPEPQQPQQIIFQQPQQ 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/643,502
FILING DATE: 18-JAN-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/124,557
FILING DATE: 16-Apr-2002
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (617)876-1170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hewick, Rodney M.
Gesner, Thomas G.
TITLE OF INVENTION: Megakaryocyte Stimulating Factors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Cserr, Luann
REGISTRATION NUMBER: 31,822
REFERENCE/DOCKET NUMBER: GI 5190
                                                                                                                                                                                                                                                TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 07/546,114
FILING DATE: 29-JUN-1990
APPLICATION NUMBER: US 07/457,196
FILING DATE: 29-DEC-1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: Cambridge
STATE: Massachusetts
                                                                                                                                                                                                                                                                                            LENGTH: 1354 amino acids
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                                                                                            Conservative
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Clark, Stephen C.
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                                                                                       22.5%; Score 204; DB 12; Length 1354; 30.2%; Pred. No. 8.5e-08; tive 28; Mismatches 59; Indels 10
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                                                                                         Indels 10;
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Qy 131 SYPVQPQQPFPQQP-QPVP 148

Db 456 PAPTTKEPSPTTPKEPAP 474

Search completed: May 27, 2003, 14:48:34 Job time: 27 secs

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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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Query Best Match	EMBL; PIR; Inter Inter Inter Inter Inter Inter SMART SMART Seed SIGNA SEQUE	Thi bet the use mod ent	Eukar Spermi Triti NCBI_ [1] [1] SEQUE SEQUE SEQUE "The Plant	ULT 1 2_WHEAT GDB2_1 P0845 01-AU 01-AU 01-NO Gamma	335 444 335 440 440 544 544 544
Ma Loc 28 3 61	EMBL: M16064; AAA34289.1; PAIR; JS0402; JS0402; InterPro: IPR003612; AAI. InterPro: IPR001954; Glia InterPro: IPR001954; Try/ Pfam; PF00234; tryp_alpha PRINTS; PR00208; GLIADGLU SMART; SM00499; AAI; 1. Seed storage protein; Rep SIGNAL 20 CHAIN 20 327 SEQUENCE 327 AA; 37122		Eukaryota; Viridiplantae; Str Spermatophyta; Magnollophyta; Triticeae; Triticum. NCBI_TaxID-4565; [1] SEQUENCE FROM N.A. Sugiyama T, Rafalski A., Soe "The nucleotide sequence of a Plant Sci. 44:205-209(1986).	JLT 1 2_WHEAT STANDARD; p08453; p1-AUG-1988 (Rel. 08, Cre 01-AUG-1989 (Rel. 16, Las 01-NOV-1990 (Rel. 16, Las Gamma-gliadin precursor. Triticum aestivum (Wheat	186 182.5 182 181.5 181.5 177.5 177.5 176.5 175.5 175.5 175.5
tch 45.5%; Sco al Similarity 50.0%; Preu 97; Conservative 12; 1 QLNPCSQELQSPQQSYLQOPYPQNP 1: QVDPSGQVOWLQQLVPOLQOPLSQOP PTPLQPQQPFPQQPQDPLPRPQ PQQPFFLQPQQPFPQQPQQPFPQTQPQ	M16064; AAA3428 yS0402; JS0402; pro; IPR003512; pro; IPR001954; pro; IPR001768; pro; IPR00234; tryp_a s; PR00238; GLIA s; SM00499; AAI; storage protein; storage protein; storage 20 32	CLASSES SEQUENCE DISTITUTE OF CLASSES AND LEAR SUBSTITUTE SINGLE-BASE SUBSTITUTE NEAR DIRECT REPEATS. SWISS-PROT entry is een the Swiss Institute European Bioinformat by non-profit institute of and this statem ties requires a lice een an email to lice een an email to lice.	ryota; Viridiplantae; Strematophyta; Magnoliophyta; iceae; Triticum. _TaxID=4565; ENCE FROM N.A. ENCE FROM N.A. Soe yama T. Rafalski A., Soe nucleotide sequence of a t Sci. 44:205-209(1996).	STAN (Rel. 0 (Rel. 0 (Rel. 1 (Rel. 1 in precu	20.5 20.1 200.1 200.0 19.6 19.5 19.4 19.4 19.3
45.5%; 50.0%; vative pQQSYLQQP QLVPQLQQPLQQP QQPQQPFPQ QQPQQPFPQ	1289.1; 2: AAI. 2: AAI. 4; Glia_ 4; Try/a_ 6; Try/a_ 10alpha_ 6alpha_ 6alpha_ 71; 1. 1; 1. 1; 1. 19 327 327	THE GANNINGE DINNER DEATS. PEATS. Instit Instit formatit to inst stateme a licen a licen	antae; olioph olioph olioph olioph olioph olioph olioph olioph olioph olioph olioph olioph olioph olioph olioph	STANDARD; 1. 08, Created 1. 08, Last se 1. 16, Last an recursor. um (Wheat).	191 738 1 738 1 634 1 1048 1 196 1 304 1 304 1 304 1 3164 1 3164 1 244
5%; Score 0%; Pred. 12; Mis 20PYPQNPYLE	glut amyl_ amyl_ TEN. eat;	TONS & TO	yta; Liliopsida; yta; Liliopsida; Soell D.; Soell D.; of a wheat gamma 6). MAJOR SEED S	PRT; ated) t sequence	AME: YKP: HWP: LP6 SRA AME GDB PCA YOG GDB
412; DB 1; No. 3.9e-22 smatches 3 QKPFPVQOPFHQTFP	tenin. _inhbtr. 1; 1. Signal; Multigene family GAMMA-GLTADIN. E27FEB9DA8BDFCCB CRC64;	TWEEN THE CLAS DUPLICATIONS O It is produce informatics are fr. There are s long as its removed. Usag nt (See http:/	hyra; Embryophyta; Tracl Opsida; Poales; Poaceae ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	AAA. e) ate)	NTS
Length 327; 7; Indels 48; G 7; Indels 48; G 11 : : QPQOTFPHQPQQVPPPQQ -QPQEFIPQOPQPFPQ -QPQEFIPQOPQQPFPQ QQPQQFPQQOPFPOTQ			yta; Tracheophyta; ; Poaceae: Pooideae; n genomic clone."; pROTEIN IN WHEAT.		099217 homo sy 09596 chlamy p35732 saccha p46593 candid p15714 elmeri 063627 rattus mu p04729 tritic p04729 tritic 2096rn5 homo s 083949 orgyia p10220 herpes p04730 tritic
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"Nucleotide sequence of a gamma gliadin gene: comparisons with other gamma gliadin sequences show the structure of gamma gliadin genes and the general primary structure of gamma gliadins.";

Plant Sci. 57:141-150(1988).

-I- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.

-I- MISCELLANBOUS: THE GAMMA-GLIADINS CAN BE DIVIDED INTO 3 HOMOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE TO SINGLE-BASE SUBSTITUTIONS & TO DUPLICATIONS OR DELETIONS WITHIN OR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-slb.ch/announce/or send an email to license@isb-slb.ch).
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Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Charyota; Viridiplantae; Liliopsida; Poales; Poaceae; Pooldea
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InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbt
Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
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                                   113. QQPFPQQPQQIIFQQPQQSYPVQPQQPFPQQPQPVPQ 149
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QQPFPQPQQQ--FPQPQ-----QPQQSFPQQQQPAIQ 161
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P06659; P1-JAN-1988 (Rel. 06, Created) 01-JAN-1988 (Rel. 06, Last sequence update) 01-NOV-1990 (Rel. 16, Last annotation update)

Gamma-gliadin B precursor

GDBB_WHEAT

GDBB_WHEAT

STANDARD;

PRT;

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Best Local
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P08079;

01-AUG-1988 (Rel. C

01-AUG-1988 (Rel. C

01-NOV-1990 (Rel. 1
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Triticum aestivum (Wheat).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnollophyta; Lillopsida; Poales; Poaceae; Pooldeae; Triticeae; Triticeae; Triticeae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

Scheets K., Rafalski J.A., Hedgcoth C., Soell D.G.;

"Heptapeptide repeat structure of a wheat gamma-gliadin.";

Plant Sci. Lett. 37:221-225(1985).

-!- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.

-!- MISCELLANEOUS: THE GAMMA-GLIADINS CAN BE DIVIDED INTO 3 HOMOLOGY

CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE TO SINGLE-BASE SUBSTITUTIONS & TO DUBLICATIONS OR DELETIONS WITHIN (NEAR DIRECT REPEATS.
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InterPro; IPR001768; Try/amyl_inhbtr.
Pfam; PF00234; tryp_alpha_amyl; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the European Bioinformatics Institute. There are no rest use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a license agreement (See http://www.isborsend an email to license@isb-sib.ch).
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167 VSLVSSLWSMI 177
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                                                                                                                                                                                                                                                                                                                                                                                                  storage protein;
                                   ---ASCIWSMV 158
                                                                QQLFPQSQQPQQQFSQPQQQFPQPQQPQQSFPQQQPPFTQPSLQQQVNPCKNFLLQQCKP 166
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86; Conservative
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251 AA;
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Pred. No. 8.7e-18;
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Best Local
                                                                                                                                                                                  Ol-JAN-1988 (Rel. 06, Created)
Ol-JAN-1988 (Rel. 06, Last sequence update)
Ol-MOV-1990 (Rel. 16, Last annotation update)
C-hordein (PCP387) (Fragment).
Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               modified and this statement is not removed. Usage horself the statement is not removed. Usage horself the statement is not removed. Usage horself an email to 1400.
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Triticum.
Forde B.G., Kreis M., Williamson M.S., Fry R.P., Shewry P.R., Bunce N., Miflin B.J.; "Short tandem repeats shared by B- and C-hordein
                                                                                                                                                                                                                                                                                                                                                                                                         HOR7_HORVU
P06472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam: PF00234: tryp_alpha_am) PRINTS; PR00208; GLIADGLUTEN SMART; SM00499; AAI; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; M13713; AAA34274.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gene 43:221-229(1986).

-!- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT BOARD A HOMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rafalski J.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001954;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR003612; AAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=86301876; PubMed=3017812;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=4565;
                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                NCBI_TaxID=4513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Structure of wheat gamma-gliadin genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  129
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NEAR DIRECT REPEATS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SFPQQ 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -VPQQ 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QVQWPQQQPFLQPHQPFSQQPQQIFP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QKPFFVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQQPQQPLPRPQQPFPWQPQ 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A25632; EEWTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QQFLQPRQPFPQQPQQPYPQQPPQQPFPQT-----QQPQQPFPQSKQPQQPFPQPQQPQQ 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYP--VQPQQPFPQQPQP-- 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IPR001768; Try/amyl_inhbtr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            32967 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 332; DB L; L
Pred. No. 1.1e-16;
Pred. No. 23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAMMA-GLIADIN B
                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         857322C22A2EF041 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                     105 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 291;
                                                             Pywell J.
                                                                                                                                                                                                          Poaceae; Pooideae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _HORVU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gamma-hordein l precursor.

Gamma-hordein precursor.

Hordeum vulgare (Barley).

Eukaryota: Viridiplantae: Streptophyta: Embryophyta: Tracheophyta:

Eukaryota: Viridiplantae: Streptophyta: Poales: Poaceae: Pooldeae:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                       -!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
-!- DOMAIN: SULFUR RICH HORDEIN WHICH POSSES AN N-TERMINAL HALF
-!- COMPOSED OF PROLITIE-GLUTAMINE BLOCKS ORGANIZED IN REPEATING
AND A C-TERMINAL HALF WHERE THE REPEATS ARE DISPERSED AND LE
                                                                                                                                                                                                                                                                                                              Cameron-Mills V., Brandt A.;
"A gamma-hordein gene.";
"A gamma-hordein gene.";
Plant Mol. Biol. 11:449-461(1988).
-!- SUBCELLULAR LOCATION: CYTOPLASMIC (AS GLOBULES) AND VACUOLAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seed storage protein; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X01779; CAA25914.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION: SULFUR-POOR SEED STORAGE PROTEIN
-!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBO J. 4:9-15(1985)
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                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-CV.
                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Triticeae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              134 VQPQQPFPQQPQPVPQQASCIWSMV 158
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     74 PQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYP 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14 PQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             90 LQPHQPYTQQ-----TIWSMV 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 PQQSY-----PVQPQQPFPQPQP--VPQQ
                                                                                                                                                                 RYE, AND LESS TO A B1 HORDEIN FROM BARLEY.
                                                                                                                                                                                     SIMILARITY: TO GAMMA-GLIADIN FROM WHEAT, AND A GAMMA-SECALIN FROM
                                                                                                                                                                                                         CONSERVED.
                                                                                                                                                                                                                                                                                                (AS PROTEIN BODIES)
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                                                                                                                                                                                                                                                                                                                                                                                         Carina;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hordeum.
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50.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
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in no way commercial

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                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Garcia-Maroto F., Manana C., Garcia-Olmedo F., Carbonero P.; "Nucleotide sequence of a cDNA encoding an alpha/beta-type gliadin from hexaploid wheat (Trittoum aestivum).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Triticum.
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01-NOV-1990 (Rel. 16, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
01-NOV-1990 (Rel. 16, Last annotation update)
Alpha/beta-gliadin MMI precursor (Prolamin).
EMBL; X17361; CAA35238.1; -.
                                                          or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                        Plant Mol. Biol. 14:867-868(1990).
-!- FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
-!- MISCELLANEOUS: THE ALPHA/BETA-GLIADINS CAN BE DIVIDED INTO 5
--- HOMOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE
TO SINGLE BASE SUBSTITUTIONS AND TO DUPLICATIONS OR DELETIONS
WITHIN OR NEAR DIRECT REPEATS. THERE ARE MORE THAN A 100 COPIES OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-cv. Chinese Spring; TISSUE-Endosperm; MEDLINE-91346679; PubMed=2102865;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                          entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=4565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178 -SLLSYIWSKI 187
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                                                                                                                                                                                                                                                                                                                    THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME.
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Pred. No. 1.3e-14;
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InterPro; IPR003512; AAI.
InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001958; Try/amyl_inhbtr.
InterPro; IPR001768; Try/amyl_1: InterPro; IPR00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
SMART; SM00499; AAI; 1.
SMART; SM00499; AAI; 1.
SMART; SM00499; AAI; 1.
                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                              Rasmussen S.K., Brandt A.;
"Nucleotide sequences of cDNA clones for C-hordein polypeptides.";
"Isberg Res. Commun. 51:371-379(1986).
-!- FUNCTION: SULFUR-POOR SEED STORAGE PROTEIN.
-!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                      Hordeum vulgare (Barley).

Eukaryota: Viridiplantae: Streptophyta: Embryophyta: Tracheophyta:
                                                                                                                                                                                                                                                                                                                                                                                                                                             C-hordein (Clone PC HOR1-3) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HORVU
                                              EMBL; M35610; AAA32943.1; -. PIR; A25677; A25677.
                                                                                                                            use by non-profit institutions as long modified and this statement is not removed
                                                                                                                                                                                                                                                                                                                                                                                           Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae:
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P17991;
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                                                                                              or send an email to license@isb-sib.ch).
                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                              TISSUE=Endosperm,
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=4513;
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31.9%;
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NON_TER

72 AA;

8590 MW;

79A1B21C6D013B8C CRC64;

Seed storage protein; Multigene family.

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HOR1_HORVI_HORVI_HORVI_HORVI_HAC PO6470

DT 01-JAN
DT 01-JAN
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DE B1-horr
OS Hordew
OC Sperma
OC Tritic
OX MCBL_T
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RA FORCE
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Best Local :
                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Separation and characterization of basic barley seed proteins."; Electrophoresis 21:3693-3700(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JAN-1988 (Rel. 06, Created)
01-JAN-1988 (Rel. 06, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                               PRINTS; PR00208; ĞLIADĞLUTEN.
SMART; SM00499; AAI; 1.
Seed storage protein; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X03103; CAA26889.1; -.
PIR, S07365; S07365.
InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=cv. Bomi; TISSUE=Starchy endosperm;
MEDLINE=21088911; PubMed=11271488;
Kristoffersen H.E., Flengsrud R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE OF 272-283 AND 286-292.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Forde B.G., Heyworth A., Pywell J., Kreis M.;
"Nucleotide sequence of a Bl hordein gene and the identification of possible upstream regulatory elements in endosperm storage protein genes from barley, wheat and maize.";
"Nucleic Notes Bod. 15,777,770 (1907)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDLINE-86041918; PubMed-4059057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=4513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B1-hordein precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOR1_HORVU
P06470;
                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PF00234; tryp_alpha_amyl; 1. PRINTS; PR00208; GLIADGLUTEN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- FUNCTION: SULFUR-RICH SEED STORAGE PROTEIN.
-!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic Acids Res. 13:7327-7339(1985).
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                                                        20 QQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQ--PQQP 77
21 QQPFPQQP-IPQQP----QPY--PQQPQPY-PQQPFP------PQQPFPQQPVPQQP 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 PQPQEPFPQQPQQPFPLQPQQPFPQQPFP-QPQQPFRQQAELIIPQQPQQPFPLQPH 60
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77; Conser
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                                                                                                                                                                                                                                               293 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                                               293 I
33423 MW;
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                                                                                                                           13; Mismatches
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Pred. No. 3.6e-13;
                                                                                                                                                            Score 271.5; DB 1; Pred. No. 1.5e~12;
                                                                                                                                                                                                                                               B1-HORDEIN.
; 217D1971CE9C945A CRC64;
                                                                                                                                                     Pred.
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                                                                                                                                                                                Length 293;
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                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 77; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
01-OCT-1996 (Rel. 34, Last annotation update
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOG3_HORVU
P80198;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a licence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plant J. 4:841-853(1993).
-t- FUNCTION: HAS A ROLE IN THE TRANSPORT AND TARGETING OF PROLAMINS TO THE VACUOLE OF DEVELOPING BARLEY ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rechinger K.B., Simpson D.J., Svendsen I., Cameron-Mills V., "A role for gamma 3 hordein in the transport and targeting of prolamin polypeptides to the vacuole of developing barley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 1-11, AND SEQUENCE OF 4-289 FROM N.A. STRAIN-CY. HORZCA: "ITSSUE-Endosperm; MEDLINE-94100996; PubMed-7-506098;
                                                                                                                                                                                                                                                                                                                                                                                                                       SMART; SM00499; AAI; 1.
Seed storage protein; Multigene family
SEQUENCE 289 AA; 33189 MW; 322CB6D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia_glutenin
InterPro; IPR001768; Try/amyl_inbb;
InterPro; IPR001768; Try/amyl_inbb;
Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              woullied and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or scord and analysis in the contract of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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-!- DOMAIN: SULFUR RICH HORDEIN WHICH POSSES AN N-TERMINAL HALF
COMPOSED OF PROLINE-GLUTAMINE BLOCKS ORGANIZED IN REPEATING UNITS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             endosperm.
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gamma-hordein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X72628; CAA51204.1; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=4513;
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       48
                                                                    62 TPLQPQQPFPQQPQPLPRPQQPFPWQ-PQQPFPQPQEPIPQQPPQQPFPQ----QPQQPF 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: TO GAMMA-GLIADIN FROM WHEAT, AND A GAMMA-SECALIN FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RYE, AND LESS TO A B1 HORDEIN FROM BARLEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONSERVED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AND A C-TERMINAL HALF WHERE THE REPEATS ARE DISPERSED AND LESS
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-PLPQQQPFPQQPQLP---HQHQFPQQLPQQQFPQ---QMPLQPQQQFPQQMPLQPQQQ- 99
                                                                                                                                             QFNPSGLELERPQQLFPQWQPLPQQP-----PFLQQE------PEQPYPQQQ-- 47
                                                                                                                                                                                                             QLNPCSQELQSPQQSYLQ-QPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61
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                                                                                                                                                                                                                                                                                                                                                   Score 267.5;
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thes 35;
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIR, D2364; D2364.
InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gliadin DNA sequences.";
J. Biol. Chem. 260:8203-8213(1985)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=85234522; PubMed=2989281;
Okita T.W., Cheesbrough V., Reeves C.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Triticum aestivum (Wheat).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Evolution and heterogeneity of the alpha-/beta-type and gamma-type
gliadin DNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alpha/beta-gliadin A-IV precursor (Prolamin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=4565;
                               198
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100
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                                                                                                                                                                                                                                                                                                                                                                                                                                       Toca T
                                                                                                                                                                                                                                                                                                                                                            3 QLNPCSQELQSPQQS---YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIO1. Chem. 260:8203-8213(1985).

FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT. FUNCTION: GLIADIN IS THE ALPHA/BETA-GLIADINS CAN BE DIVIDED INTO 5 MISCELLANBOUS: THE ALPHA/BETA-GLIADINS CAN BE DIVIDED INTO 5 HOWOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE TO SINGLE BASE SUBSTITUTIONS AND TO DUPLICATIONS OR DELETIONS WITHIN OR NEAR DIRECT REPEARS. THERE ARE MORE THAN A 100 COPIES OF THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME.
                         NVVHAIILHQQQQQQQQQQQQQQQPLSQVCFQQSQQQYPSGQGSFQPSQQNPQAQGSVQP 257
                                                                                                                    ILQQILQQQLIPCRDVVLQQHSIAHGSSQVLQQSTYQLVQQFCCQQLWQIPEQSRCQAIH 197
                                                                                                                                                                                                                  PQLPYP-QPQLPYP----QPQPFRPQQSYP-QPQPQYSQPQQPISQQQQQQQQQQQQQQQQQQQQQQ
                                                                                                                                                                                                                                                              YQIPTPLQPQQPFPQQPQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQ------
                                                                                                                                                                                                                                                                                                             QLQPQNPSQQQPQKQVPLVQQQQFPGQQQPFPPQQPYPQQQPFPSQQ----PYMQLQPFPQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PQFPQQKPFGQYQQ--PL-TQQPYPQQ-QPLAQQQPSI 133
                                                                                                                                                                                                                                                                                                                                                                                                             1 Similarity
79; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           297 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                        -----QPPQQPFPQQP-QQIIFQQPQQSYP-----VQPQQPFPQ-----QP 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             34239 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                  29.1%; Score 263.5; 32.2%; Pred. No. 5.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALPHA/BETA-GLIADIN A-IV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0025ED289AE9588B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        297 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             update)
                                                                                                                                                                                                                                                                                                                                                                                                                                     .4e-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                             43;
                                                                                                                                                                      ----PFP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 297;
                                                                                                                                                                                                                                                                                                                                                                                                             Indels 107;
                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             12;
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                                                                                                                                                                                                                                                                                                             Пp
                       GDA2_WHEAT
                                                 RESULT 13
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GDA6_WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIINE=85242077; PubMed=3839304;
Summer-Smith M., Rafalski J.A., Sugiyama T., Stoll M., Soell D.;
"Conservation and variability of wheat alpha/beta-gliadin genes.";
Nucleic Acids Res. 13:3905-3916(1985).

-!- PUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
-!- PUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
-!- MISCELLANEOUS: THE ALPHA/BETA-GLIADINS CAN BE DIVIDED INTO 5
--- HOWOLOGY CLASSES. SEQUENCE DIVERGENCE BETWEEN THE CLASSES IS DUE
TO SINGLE BASE SUBSTITUTIONS AND TO DUPLICATIONS OR DELETIONS
WITHIN OR NEAR DIRECT REPEATS. THERE ARE MORE THAN A 100 COPIES OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
GDA2_WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00499; AAI; 1.
Smart; Smonage protein; Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; X02538; CAA26383.1; -. EMBL; K03074; AAA34277.1; -. PIR; S07361; S07361.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-AUG-1987 (Rel. 05, Created)
13-AUG-1987 (Rel. 05, Last sequence update)
15-JUL-1999 (Rel. 38, Last annotation update)
Alpha/beta-gliadin clone PWI215 precursor (Prolamin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pfam; PF00234; tryp_alpha_amy PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GDA6_WHEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR001954; Glia_glutenin.
InterPro; IPR001768; Try/amyl_inhbtr.
                                                                                                                    132
                                                                                                                                                                 136 POOPFPOOPOPVPOO 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nterPro; IPR003612; AAI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          145 QPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        258 QQLPQ 262
                                                                                                                                                                                                                                                                 77
                                                                                                                                                                                                                                                                                                                27
                                                                                                                                                                                                                                                                                                                                                         21 QPYPQNPYLPOK----PEPVQQPEHTPQQYEPYLPEELFPQYQIPTPLQPQQPEPQQPQQ 76
                                                                                                                                                                                                                                                                                                                                                                                                                               Watch 28.18; Local Similarity 49.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME
                                                                                                                    00000000000001100 146
                                                                                                                                                                                                                  PFPQP-QPFP--PQLPYPQPP---PFSPQQPYPQPQPQYPQPQQP--1SQQQAQQQQQQQ 131
                                                                                                                                                                                                                                                         PLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQ-QPQQPFPQQPQQIIFQQPQQSYPVQ 135
                                                                                                                                                                                                                                                                                                          QPQPQNPSQPQCQVPLVQQQQFPGQQQQFP--PQQPYPQ---PQPFPSQQPYLQ--LQ
                                                                                                                                                                                                                                                                                                                                                                                                             67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        296 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
  STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33941 MW;
                                                                                                                                                                                                                                                                                                                                                                                                           8;
                                                                                                                                                                                                                                                                                                                                                                                                                  Score 255; Db 1,
No. 2.1e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALPHA/BETA-GLIADIN CLONE PW1215
  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A9BDF590AD40F135 CRC64
                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
  291 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        296 AA.
                                                                                                                                                                                                                                                                                                                                                                                                           40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 296;
                                                                                                                                                                                                                                                                                                                                                                                                           Indels 20;
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Gaps

9;

79

Дb Qy Дb QY DЬ Qy В 20

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15 FF FF
                                                                                                                                                                                                                                                   RESULT 14
GDA3_WHEAT
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Best Local
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J. Biol. Chem. 260:8203-8213(1985).

J. Biol. Chem. 260:8203-8213(1985).

HEADIN IS THE MAJOR SEED STORAGE PROTEIN IN WHEAT.
FUNCTION: GLIADIN IS THE MAJOR SEED STORAGE PROTEIN INTO 5

MISCELLANEOUS: THE ALPHA/BETA-GLIADINS CAN BE DIVIDED INTO 5

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SMART; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-AUG-1987 (Rel. 05, Created)
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13-JUL-1999 (Rel. 38, Last annotation update)
15-JUL-1999 (Rel. 38, Last annotation update)
Alpha/beta-gliadin A-II precursor (Prolamin).
GDA3_WHEAT STANDARD; PRT; 282 AA. P04723; P13-AUG-1987 (Rel. 05, Created) 13-AUG-1987 (Rel. 05, Last sequence update) 15-JUL-1999 (Rel. 38, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Okita T.W., Cheesbrough V., Resves C.D.: "Evolution and heterogeneity of the alpha-/beta-type and gamma-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae; Triticeae; Triticea
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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InterPro: IPR001768; Try/amyl_inhbtr.
Pfam; PF00234; tryp_alpha_amyl; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    201 QHHHHQQQQQQQQQQPLSQVSFQQPQQQYPSGQGFFQPSQQNPQAQGSFQPQQLPQ 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             108 --- FPQQPQQPFPQQP-QQIIFQQPQQSYP-----VQPQQPFPQ----- QPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141 IPCRDVVLQQHNIAHGSSQVLQESTYQLVQQLCCQQLWQIPEQSRCQAIHNVVHAIILHQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29 QLQNPSQQQPQEQVPLVQEQQFQGQQQPFPPQQPYPQPQPFPSQQ---PYLQLQPFPQPQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; PR00208; GLIADGHOLL...
SM00499; AAI; 1
Smoo499; AOI; Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IPR003612;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 291 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 291 / 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 250; DB 1; Length 291; Pred. No. 4.5e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALPHA/BETA-GLIADIN A-II.
'; 9B39F93B0825A2E0 CRC64;
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                                                                                                                                                                                                                                             RESULT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Okita T.W., Cheesbrough V., Reeves C.D.; "Evolution and heterogeneity of the alpha-/beta-type and gamma-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Triticeae; Triticum.
NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
                                               Hordeum vulgare (Barley).
Eukaryota; Viridiplantae; Streptophyta: Embryophyta: Tracheophyta:
Spermatophyta: Magnollophyta: Liliopsida; Poales; Poaceae; Pooldea
Triticeae; Hordeum.
                                                                                                                                   HOR3_HORVU STANDARD; PRT; 264 AA. P06471; P06471; O1-JAN-1988 (Rel. 06, Created) O1-JAN-1988 (Rel. 06, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00234; tryp_alpha_amyl; 1. PRINTS; PR00208; GLIADGLUTEN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EmpL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no way use by non-profit institutions as long as its content is in no way.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIJINE-85234522; PubMed-2989281;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alpha/beta-gliadin A-III precursor (Prolamin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SMART; SM00499; AAI; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRINTS; PR00208;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; M11076; AAA34283.1; -.
SEQUENCE FROM N.A
                               NCBI_TaxID=4513;
                                                                                                                   B3-hordein (Fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Seed storage protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    InterPro; IPR003612; AAI.
InterPro; IPR001954; Glia_glutenin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PIR; E22364; E22364.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro;
                                                                                                                                                                                                                                                                                              130 QOILQQQLIPCRDVVLQQHNIAHASSQVLQQSSYQQLQQLCCQQLFQIPEQSRC
                                                                                                                                                                                                                                                                                                                               117 POOPPOO-----IIFOOP-------OQSYPVQPQQPFPQQPQPVPQQASC 153
                                                                                                                                                                                                                                                                                                                                                                   78 Q---POPEPPOLPYPO--TOPEP-POOPYP-OPOPOYPOPOOPISOOQAOQ-QOOQOOTL 129
                                                                                                                                                                                                                                                                                                                                                                                                    57
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                                                                                                                                                                                                                                                                                                                                                                                                                                      27 QLQPQNPSQQQPQEQVPLMQQQQQFPGQQEQFPPQQPYPHQQPEPSQQPY------P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 QLNPCSQELQSPOQS----YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFP 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THE GENE FOR ALPHA/BETA-GLIADIN PER HAPLOID GENOME.
                                                                                                                                                                                                                                                                                                                                                                                                      OYOIPTPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQPF 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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32236 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Repeat; Signal; Multigene family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 242; DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALPHA/BETA-GLIADIN A-III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 87277047784E870A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a collaboration -
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Matches 55; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                      EMBL: X01777; CAA25912.1; --
EMBL: M23869; AAA32967.1; --
EMBL: IPRO03612; AAI
InterPro; IPRO03612; AAI
InterPro; IPRO01768; Try/amyl_inhbtr.
Pfam; PF00234; tryp_alpha_amyl; 1.
SMART; SM00499; AAI; 1.
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MEDLINE-2108991; PubMed=11271488;
Kristoffersen H.E., Flengsrud R.;
"Separation and characterization of basic barley seed proteins.";
Electrophoresis 21:3593-3700(2007).
-!- FUNCTION: SULPUR-RICH SEED STORAGE PROTEIN.
-!- TISSUE SPECIFICITY: DEVELOPING ENDOSPERM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Forde B.G., Kreis M., Williamson M.S., Fry R.P., Pywell J., Shewry P.R., Bunce N., Miflin B.J.; Short tandem repeats shared by B- and C-hordein cDNAs suggest a common evolutionary origin for two groups of cereal storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 211-264 FROM N.A. Rammussen S.K., Hopp H.E., Brandt A.; Rasmussen S.K., Hopp H.E., Brandt A.; "Nucleotide sequences of cDNA clones for B1 hordein polypeptides."; Carlsberg Res. Commun. 48:187-199(1983).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 136-146.
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                                                                                                                                                                                                                                                                                                                                                                                   Seed storage protein; Multigene family.
                                                                                                                              126 QQPQQSYPVQPQQPFPQQP----QPV-PQQASC 153
                                                                                                                                                                                                              67 QQPFPQQPQQPLP-RPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPPQQPFPQQPQQIIF 125
                                                                                    54 ----FP--SQQPFPQQPPFWQQQPVLSQQQPC 79
                                                                                                                                                                     1 QQPVSRQPQQIIPQQPQQPFPLQPQQPQPFPQQPIPQQP-QPYPQQPQS-FPQQP----- 53
                                                                                                                                                                                                                                                                                                                                            264 AA; 30196 MW;
                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                        26.5%; Score 240;
58.5%; Pred. No. 2
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Result
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Maximum Match 100%
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    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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Match Length DB
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pir2:*
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310
347
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326
297
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320
JS04502
JA01502
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EEWTG
SO7189
SS8312
S10015
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S18235
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T06211
T05737
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                 alpha/beta-gliadin
gamma-hordein 3
alpha/beta-gliadin
alpha/beta-gliadin
gliadin - wheat
alpha/beta-gliadin
cell division prot
glutenin low molec
alpha/beta-gliadin
B3-hordein (clone
                                                                                                                                                                                                                                                                                                                                              omega secalin prec
gamma-gliadin prec
gamma-gliadin prec
gamma-gliadin prec
gamma-gliadin B pr
C-hordein (clone p
gamma-hordein 1 pr
alpha/beta-gliadin
                                                                                                                                                                                                                                                                                      egg envelope prote
C-hordein (pc hor1
hordein Bl - barle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seed storage prote
C-hordein precurso
probable hordein C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     omega secalin prec
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alpha/beta-gliadin

A; Reference number: A93228

RESULT 2 T06311 C:hordein precursor - barley C:Species: Hordeum vulgare (barley) C;Species: Hordeum vulgare (barley) C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change C;Accession: T06211; A03355 R;Sainova, O.V.; Mekhedov, S.L.; Zhelnin, L.G.; Khokhlova, T.A. Genetika 29, 1070-1079, 1993 A,:Title: Nucleotide sequence of the barley C-hordein gene. A;Reference number: Z15537; MUID:93380629; PMID:8396543 A;Reference number: Z15537; MUID:93380629; PMID:8396543 A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-310 <sai 1980<="" 286,="" 520-522,="" a;cross-references:="" autran,="" c.c.;="" e.j.l.;="" embl:s66938;="" j.c.;="" kasarda="" lew,="" nature="" nid:9442523;="" nimmo,="" p.r.;="" pidn:aab28161.1:="" r;shewry,="" th=""><th>Query Match Query Match Query Match Query Match Query Match Best Local Similarity 98.7%; Pred. No. 7.7e-53; Matches 147; Conservative 0; Mismatches 1; Indels 1; G Qy RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPPQQYFPYLPEELFPQYQIP </th><th>1995 #text_change eron-Mills, V. and in vitro anal D:1932695</th><th>30 238 26.3 356 2 S01992 gluten: 31 238 26.3 359 2 T065982 alpha-0; 32 237 26.2 288 2 T065982 alpha-0; 33 236.5 26.1 319 2 A22364 alpha-0; 34 236.0 286 2 S07923 alpha-0; 35 235.5 26.0 276 2 S57556 gluten: 36 234 25.8 286 1 EEWTA 37 234 25.8 292 2 B22364 40 230.5 25.4 26.1 26.2 26.2 26.2 26.2 26.2 26.2 26.2</th></sai>	Query Match Query Match Query Match Query Match Query Match Best Local Similarity 98.7%; Pred. No. 7.7e-53; Matches 147; Conservative 0; Mismatches 1; Indels 1; G Qy RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPPQQYFPYLPEELFPQYQIP	1995 #text_change eron-Mills, V. and in vitro anal D:1932695	30 238 26.3 356 2 S01992 gluten: 31 238 26.3 359 2 T065982 alpha-0; 32 237 26.2 288 2 T065982 alpha-0; 33 236.5 26.1 319 2 A22364 alpha-0; 34 236.0 286 2 S07923 alpha-0; 35 235.5 26.0 276 2 S57556 gluten: 36 234 25.8 286 1 EEWTA 37 234 25.8 292 2 B22364 40 230.5 25.4 26.1 26.2 26.2 26.2 26.2 26.2 26.2 26.2
; 11-May-2000	1: Gaps 1:	e 20-Aug-1999	glutenin low molec glutenin low molec alpha-gliadin prec alpha/beta-gliadin prec alpha/beta-gliadin glutenin low molec alpha/beta-gliadin alpha/beta-gliadin alpha/beta-gliadin alpha/beta-gliadin cell division prot glutenin low molec B1 hordein - barle c-hordein (pc-919) cell division prot glutenin low molec B1 hordein - barle chordein (pc-919) cell division prot glutenin low molec annexin VII - slim
; Anan'ev, E.V.	1: Gaps 1:	lysis of two C-hordein	
PID:9442524		PID:g19001	

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RESULT 4
S18236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         probable hordein C - barley
C:Species: Hordeum vulgare (barley)
C:Date: 09-Apr-1999 #sequence_revision 09-Apr-1999 #text_change 20-Aug-1999
C:Accession: T05737
R:Entwistle_J.
R:Entwistle_J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Accession: A03355
A;Molecule type: protein
A;Residues: 21-48 <SHE>
A;Residues: 21-1348
C;Superfamily: gliadin
F;1-20/Domain: signal sequence #status predicted <SIG>
F;21-310/Product: C-hordein #status experimental <MAT>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carlsberg Res. Commun. 53, 247-258, 1988
A;Title: Primary structure of a C-hordein gene from barley.
A;Reference number: 215444; MUID:89351278; PMID:3255313
A;Accession: T05737
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A;Experimental source: cv. Bomi, immature endosperm
C;Superfamily: gliadin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-347 <ENT>
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                                                                        195 QPQQTIPQQPQQPFPLQPQQPFPQQPQQPLPQQPQQIIS 233
                                                                                                                                                        135
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                                                                                                              119 QPQQIIFQQPQQSYPVQPQQPFPQQP-QPVPQQASCIWS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   201 QQPFSFSQQPQQPFPLQPQQPFPQQPQQPFPQQPQQIIFQQPQQSYPVQPQQPFP-QPQP 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           141 QPFPQQPQQPFPQPQQPFPWQPQQPFPQPQQPFPLQPQQPFPWQPQQPFPQPQQPIAHQP
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                                                                                                                                                                                                                                                                                                             21
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                                                                                                                                                                                             PQQPFP--
                                                                                                                                                                                                                                PPSQQPNPLQPQQPFPLQPQPPQQPFPQQPQQPNPQQPPPRQPQQIVPQQPQQPFPQQ 134
                                                                                                                                                                                                                                                       PQYQIPTPLQPQQPF----PQQPQQPLPRPQQPFPWQPQQPFP-QPQEPIPQQPQQPFPQQ 111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQQPIPYQPQQPFNQQPQQIISQQPQ 140
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                                                                                                                                                                                                                                                                                                             RQLNPSHQELQSPQQPFLKQQSYLQQPYPQQPYLPQQPFP-----
                                                                                                                                                                                                                                                                                                                                                 RQLNPCSQELQSP-----QQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELF 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61
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54.3%;
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58.6%;
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                                                                                                                                                                                                                                                                                                                                                                                        10; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       Score 580; DB 2; pred. No. 7.9e-35;
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. 3.7e-47;
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F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-357/Product: omega secalin #status predicted <MATY
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-357 < HUL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R:Hull, G.A.; Halford, N.G.; Kreis, M.; Shewry, P.R. Plant Mol. Biol. 17, 1111-1115, 1991
A;Title: Isolation and characterisation of genes enc A;Reference number: S18235; MUID:92032773; PMID:1932A;Accession: S18235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C;Species: Secale cereale (rye)
C;Datc: 16-Sep-1992 #text_change 20-Aug-1999
C;Accession: S18235; S19777
C;Accession: S18235; S19777 N.G. Kreis, M.: Shewry, P.R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-357 < HUL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             omega secalin precursor (clone pSec1B) - rye C; Species: Secale cereale (rye)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Superfamily: gliadin
F;1-19/Domain: signal sequence #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: S18236
                                                                                                                                                                                                                                                                                                                                                                                                                    C; Genetics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:X60295; NID:g21203; PIDN:CAA42837.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:X60294; NID:g21201; PIDN:CAA42836.1;
                                                                                                                                                                                                                                                   Matches
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Best Local :
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135 QPQQIIPQQTQQPFPLQPQQPFPQQPQRPFAQQPEQIIS 173
                                        119 QPQQIIFQQPQQSYPVQPQQPFPQQPQ-PVPQQASCIWS 156
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                                                                                                                                                                   20
                                                                                75 TPIQPOQPFPQRPOQPFPQPQQQLPLQPOQSFPQPQHPIPQQPPQQSFPQQPPQRPEQQFPQ
                                                                                                                      62 TPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQP---FPQ 118
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                                                                                                                                                                                                                                                   108;
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67.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62.5%; Score 566; DB 2; 70.7%; Pred. No. 8.1e-34;
                                                                                                                                                                                                                                                 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genes encoding rye PMID:1932685
                                                                                                                                                                                                                                                                       1.4e-33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 2; Length 357;
                                                                                                                                                                                                                                                                                           DB 2;
                                                                                                                                                                                                                                                   31;
                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                              357;
                                                                                                                                                                                                                                                                                                                                                                                                                                        PID:g21202
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      prolamins containing a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           prolamins containing a
                                                                                                                                                                                                                                                   9.
                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                    134
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RESULT 6

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A;Experimental source: cv. Yamhill
C;Comment: Gamma-gliadins belong to a subclass of the s
C;Comment: Gamma-gliadin
C;Superfamily: gliadin
C;Keywords: storage protein
C;Keywords: storage protein
F;1-19/Domain: signal sequence #status predicted <SIG>F;20-327/Product: gamma-gliadin #status predicted <MAN:
     В
                                    ОÃ
                                                                           Ъ
                                                                                                          Qy
                                                                                                                                                                                                                                        lity, molecular weight, and amino acid content. C:Superfamily: gliadin F:1-19/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                             A;Experimental source: seed
A;Experiment: Wheat storage proteins are classified as prolamins (alpha-/beta-,
                                                                                                                                                                                                                                                                                                                                                                        A;Title: Nucleotide sequence of a A;Reference number: JA0153 A;Accession: JA0153
                                                                                                                                                                                                                                                                                                                                                                                                                                C:Accession: JA0153
R:Scheets, K.; Hedgcoth, C.
Plant Sci. 57, 141-150, 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gamma-gliadin precursor - wheat
N;Alternate names: seed storage protein
C;Species: Triticum aestivum (common wheat)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 15-Nov-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gamma-gliadin precursor - wheat
C;Species: Triticum aestivum (common wheat)
C;Date: 07-Sep_1990 #sequence_revision 07-Sep_1990 #text_change 15-Nov-1996
C;Accession: JS0402
                                                                                                                                                                                                                      F;20-302/Product: gamma-gliadin #status predicted <GAG>
                                                                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-302 <SCH>
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A; Accession: JS0402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Plant Sci. 44, 205-209, 1986
A;Title: The nucleotide sequence of a wheat gamma-gliadin genomic clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R; Sugiyama, T.; Rafalski,
Plant Sci. 44, 205-209, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JA0153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Residues: 1-327 <SUG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
                                                                                                                                                   Matches
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                                                                                              QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHT----PQQYFPYLPEELFPQYQ
QTYPHQPQQQFPQTQQPQQPFPQPQQTFPQQPQLPFPQQPQQPFPQPQQPFPQSQQP
                     IPTPLOPQQPEP--QQPQQPLPRPQQPFPWQPQQPFP--QQEPI--PQQPQQPFP--QQP 112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SKPASLVSSLWSII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QPQQPFPQLQQPQQ-PFPQPQQQLPQQPQQSFPQQQRPFIQPSLQQQLNPCKNILLQQ 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QPQQPFP--QQPQQIIFQQPQQS--YPVQPQQPFPQQPQPVPQQA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QVDPSGQVQWLQQQLVPQLQQPLSQQP-----QQTFPQPQQTFPHQPQQQVPQQPQQ 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QLNPCSQE--LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQI
                                                                         QVDP-SGQVQWPQ----QQPFPQ----PQQPF-CQQPQRTIPQPHQTFHHQPQQTFPQPQ 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PQQPFLQPQQPFPQQPQQPFPQTQQPQQPFPQQPQQPFPQTQQPQQPFPQQPQQPFPQTQ 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          l Similarity
97; Conserv
                                                                                                                                                                    Similarity
                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SCIWSMV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       i, A.; Soell,
1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45.5%;
                                                                                                                                                                  42.4%;
58.0%;
                                                                                                                                                     11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12;
                                                                                                                                                 Score 384.5; DB 2;
Pred. No. 6.3e-21;
L1; Mismatches 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 412; DB 2;
Pred. No. 7.4e-23;
                                                                                                                                                                                                                                                                                                                                                                                                           gamma gliadin gene: comparisons
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                                                                                                                                                                                    DB 2;
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                                                                                                                                                 27;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    151
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C;Superfamily: gliadin
C;Keywords: seed; storage protein
F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-291/Product: gamma-gliadin B #status predicted <Ms
                                       20
                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-291 <RAF>
A; Cross-references: GB:M13713; NID:g170707;
C; Comment: Gliadin, a glutamine and proline
                                                                                                                                                                                                                                                                                                                                                        A;Title: Structure of wheat gamma-gliadin A;Reference number: A25632; MUID:86301876;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          gamma-gliadin B precursor - wheat
C;Species: Triticum aestivum (common wheat)
C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 16-Jul-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Дb
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C:Keywords: storage protein
F:1-19/Domain: signal sequence #status predicted <SIG>
F:20-251/Product: gamma-gliadin (clone pWI0) (fragment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Residues: 1-251 <SCH>
A;Cross-references: GB:M16060; NID:g170735; PIDN:AAA34288.1; PID:g170736 C;Comment: Gliadins are the major storage proteins of wheat grain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gamma-gliadin precursor (clone pW10) - wheat (fragment)
C:Species: Triticum aestivum (common wheat)
C:Date: 31-Dec-1990 #sequence_revision 31-Dec-1990 #text_change 20-Aug-1999
    Ъ
                                                                                                                                                                                                                                                                                                                                        A; Reference number: A; Accession: A25632
                                                                                                                                                                                                                                                                                                                                                                                                      Gene 43, 221-229, 1986
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Scheets, K.; R
Plant Sci. Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qy
                                                                                                                                                                                                                                                                                                                                                                                                                         R;Rafalski,
                                                                                                                                                                                                                                                                                                                                                                                                                                             C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-251 <SC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Title: Heptapeptide repeat structure of a wheat gamma-gliadin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Accession: PS0094
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                                                                                   Matches
                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 167 VSLVSSLWSMI 177
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            113 QQFFPQQPQQ1IFQQPQQSYPVQPQQPFPQQPQPVPQ 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       151 --- ASCIWSMV 158
  28
                                       31 QKPFPVQQPFHTPQQYFPYLPEELFPQYQIPTPLQPQQPFPQQPQPLPRPQQPFPWQPQ 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54 --QPQQTFPHQPQQQFPQPQ-----QPQQQFLQPQQPFPQQPQQPYPQQPQQPFPQTQQP 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63 PLQPQQPFPQQPQOPLPRPQQPFPWOPOQPFPQPQEPIPQQPQ0PFPQQPPQPPP--Q0P 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22 QVDPSSQ-VQWPQ----QQPVPQ-----PQQTFP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPT 62
QVQWPQQQPFLQPHQPFSQQPQQIFP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              QQLFPQSQQPQQQFSQPQQQFPQPQQPQQSFPQQQPPFIQPSLQQQVNPCKNFLLQQCKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     QQII-----FQQPQQSY--PVQPQQPFPQQP----QPVPQQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    QQPFPQPQQQ--FPQPQ-----QPQQSFPQQQQPAIQ 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          K.; Rafalski,
                                                                                                                                                                                                                                                                                                                                                                                                                         J.A
                                                                                     69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86;
                                                                                                      Similarity
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                                                                                   Conservative
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45.0%;
                                                                                                  36.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11; Mismatches
                                                                              9;
                                                                                                  Score 332; DB 1;
Pred. No. 3.4e-17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 347; DB 2;
Pred. No. 2.5e-18;
                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                          genes.
; PMID:3017812
                                                                                                                                                                                                                                                   PIDN:AAA34274.1; PID:g170708 rich protein, is a major sto
-QPQQTFPHQPQQQFPQPQ-----QPQ 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (fragment) #status predicted <MAT>
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                                                                                                                                                                    <MAT>
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                                                                                                                      Length 291;
                                                                                 Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . . . . . . . . . . .
                                                                                 24;
                                                                            Gaps
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                                                                                                                                                                                                                                                   storage
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••
                                                                                                                                                                                                                                                   protein
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RESULT 10
$07189

C-hordein (clone pcp387) - barley (fragment)

C-bordein (clone pcp387) - barley (fragment)

C.Species: Hordeum vulgare (barley)

C; Species: Hordeum vulgare (barley)

C; Accession: $07189

R; Forde, B.G.; Kreis, M.; Williamson, M.S.; Fry, R.P.; Pywell, J.; Shewry, P.R.;

EMBO J. 4, 9-15, 1985

A; Title: Short tandem repeats shared by B- and C-hordein cDNAs suggest a common e

A; Reference number: $07189

A; Molecule type: mRNA
A; Residues: 1-105 <FOR>
A; Accession: $07189

A; Rocession: $07189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
S08312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: EMBL:X01779; NID:g18948; PIDN:CAA25914.1; C;Genetics: A;Gene: Horl
A;Map position: 5
C;Superfamily: gliadin
C;Keywords: seed; storage protein
                                                                                                                                                                                                       A;Cross-references: EMBL:X13508; NID:g18979; PIDN:CAA31861.1; C;Superfamily: gliadin C:Keywords: seed; storage protein
                                                                                                                                                                                                                                                                                                                                                                                                                                        gamma-hordein 1 precursor - barley
C:Species: Hordeum vulgare (barley)
C:Date: 30-Jun-1992 #sequence_revision
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Qy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
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Ъ
                                  Qy
                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-305 < CAM>
                                                                                                                                                                                                                                                                                                                                                       R;Cameron-Mills, V.; Brandt, A.
Plant Mol. Biol. 11, 449-461, 1988
A;Title: A gamma-hordein gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QУ
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                                                                                                                                                                 F;1-19/Domain: signal sequence #status predicted <SIG>
F;20-305/Product: gamma-hordein 1 #status predicted <MAT>
                                                                                                                                                                                                                                                                                                               A; Reference number: A; Accession: S08312
                                                                                                                                                                                                                                                                                                                                                                                                                      C; Accession:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147 -VPQQ 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  134 VQPQQPFPQQPQPVPQQASCIWSMV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
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22
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                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                       3 QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIPT 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQII--PQQPFPLQPQ-----PFPQQPQQPLP-QPQQPFRQQAELIIPQQPQQPLP 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POOPLPRPOOPFPWOPQQPFPOPQEPIPQQPQQPFPOQPPQQPFPQQPQQIIFQQPQQSYP 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PQQSY-----PVQPQQPFPQPQP--VPQQ-----RPQQASPLQPQQPFPQG 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SFPQQ 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QVNP-SVQVQPTQ--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         QQFLQPRQPFPQQPQQPYPQQPQQPFPQT-----QQPQQPFPQSKQPQQPFPQPQQPQQ 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LQPHQPYTQQ-----
                                                                                                      Similarity
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ilarity 50.3%;
Conservative
                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                   ruein gene.
S08312
                                                                                                    33.3%;
-QQPYPES-
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                                                                                13;
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pred. No. 4.5e-16;
8; Mismatches 23;
                                                                                                      Pred.
                                                                                                                          Score 302;
                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                          30-Jun-1992 #text_change 20-Aug-1999
                                                                                                      No
                                                                                                      5e-15;
QQPFISQSQ-----QQFPQPQQPF
                                                                                                                          DB 2;
                                                                                   40;
                                                                                                                          Length 305
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                                                                                                                                                                                                                                                    PID:g18980
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egg envelope protein wf - winter flounder
N;Alternate names: zona pellucida protein homolog wf
C:Species: Pseudopleuronectes americanus (winter flounder)
C:Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
C:Accession: A48048
                                                                                                                                                                                                                                                                                                         RESULT 13
A48048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           alpha/beta-gliadin precursor (clone MM1) - wheat C;Speciles: Triticum aestivum (common wheat) C;Deciles: Triticum aestivum (sommon wheat) C;Date: 31-Deci-1990 #sequence_revision 31-Dec-1990 #text_change 20-Jun-2000 C;Accession: S10015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Garcia-Maroto, F.; Marana, C.; Garcia-Olmedo, F.; Carbonero, Plant Mol. Biol. 14, 867-868, 1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QΥ
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A; Molecule type: DNA
A; Residues: 1-509 <LYO>
A; Cross-references: GB:U03674;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Superfamily: gliadin F;1-20/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: EMBL:X17361; NID:g21672; PIDN:CAA35238.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
A; Residues: 1-307 <GAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Title: Nucleotide sequence of a cDNA encoding an alpha/beta-type gliadin from hexap A;Reference number: S10015; MUID:91346679; PMID:2102865 A;Accession: S10015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                 A; Status: preliminary
                                                                                      A; Accession: A48048
                                                                                                        A;Title: Expression and structural analysis of a teleost A;Reference number: A48048; MUID:94012691; PMID:8407974
                                                                                                                                                   R:Lyons, C.E.; Payette, K.L.; Price, J. Biol. Chem. 268, 21351-21358, 1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27 QLQPQNPSQQQPQEQVPLVQQQQFPGQQQPFPPQQPYPQPQPFPSQQ----PYLQLQPFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 QLNPCSQELQSPQQS---YLQQPYP--QNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PQLPYP-QPQLPYP-QPQLPYPQPQ----PFRPQQPYPQSQPQYSQPQQPISQQQQQQQQQQ 138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YQIPTELQPQQPFPQQPLPRPQQPFPWQPQQPFP------QPQEPIPQQPQQPFPQ 110
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81;
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31.9%; Pred. No. 3.9e-14;
  NID:g425355; PIDN:AAC59642.1; PID:g425356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18;
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                                                                                                                                                                            J.L.;
                                                                                                                                                                          Huang, R.C.C
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                                                                                                                                   homolog
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                                                                                                                                                                                                                         21-Jul-2000
                                                                                                                                     of a mammalian zona
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C;Genetics:
A;Introns: 224/1; 285/3; 318/2; 372/1; 436/2; 485/2
C;Superfamily: trefoil homology: 2P domain homology
F;186-221/Domain: trefoil homology <TRF5>
F;227-505/Domain: ZP domain homology <ZPH>
                                                                                                                                                                                                                           hordein Bl - barley
C; Species: Hordeum vulgare (barley)
C; Species: Hordeum vulgare (barley)
C; Date: 02-Dec-1993 #sequence_revision 01-Dec-1995 #text_change 20-Aug-1999
C; Accession: S07365
R; Forde, B.C.; Heyworth, A.; Pywell, J.; Kreis, M.
Rucleic Acids Res. 13, 7327-7339, 1985
Nucleic Acids Res. 13, 7327-7339, 1985
A; Title: Nucleotide sequence of a Bl hordein gene and the identification of possible ups
A; Reference number: S07365; MUID: 86041918; PMID: 4059057
A; Accession: S07365.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
A25677
C-hordein (pc hor1-3) - barley (fragment)
C;Species: Hordeum vulgare (barley)
C;Species: Hordeum vulgare (barley)
C;Date: 05-Oct-1988 *sequence_revision 05-Oct-1988 *text_change 12-Apr-1995
C;Accession: A25677
R;Rasmussen, S.K.; Brandt, A.
Carlsberg Res. Commun. 51, 371-379, 1986
A;Title: Nucleotide sequences of cDNA clones for C-hordein polypeptides.
A;Reference number: A90768
A;Accession: A25677
A;Molecule type: mRNA
A;Residues: 1-72 <RAS>
C;Superfamily: gliadin
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S07365
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                                                                             C;Superfamily: gildulu
C;Keywords: seed; storage protein
                                                                                                                                                             A; Status: preliminary
A; Molecule type: DNA
A; Residues: 1-293 <FOR>
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                                                                                                                A;Cross-references: EMBL:X03103; NID:g18909; PIDN:CAA26889.1; PID:g18910 C;Superfamily: gliadin
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Best Local :
    Matches
                        Query Match
Best Local
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tive 13; Mismatches 25
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ALIGNMENTS

RESULT 1 Q40053

Ър 2 ADD DATE OF THE PROPERTY OF TH Query Match Best Local S Matches 147 MEDLINE-92032786; PubMed=1932695; Cameron-Mills V.; "Anber codon suppression: the in vivo and in vitro analysis hordein genes from barley."; Plant Mol. Biol. 17:1217-1231[1991). Q40053; PRELIMINARY; PRT; 260 AA. Q40053; Ol-NOV-1996 (TrEMBLrel 01, Created) Ol-NOV-1996 (TrEMBLrel 01, Last sequence update) Ol-DEC-2001 (TrEMBLrel 19, Last annotation update) "The nitrogen response of a barley C-hordein promoter is contropositive and negative regulation of the GCN4 and endosperm box. Plant J. 4:343-355(1993).
EMBL: X60037; CAA42642.1; -. SEQUENCE Mueller M., Knudsen MEDLINE=94035184; PubMed=8220485; SEQUENCE FROM N.A. STRAIN=CV. BOMI; Triticeae; Hordeum. NCBI_TaxID=4513; Hor1-17 C-hordein.

Hordeum vulgare (Barley).

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea STRAIN-CV. SEQUENCE FROM N.A. Local Similarity nes 147; Conserv 21 Ν RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP 61 260 AA; BOMI; Conservative 30397 MW; 91.7**%**; 98.7**%**; 0; Score 830.5; Pred. No. 4. CB220BD2309280AE CRC64; Mismatches 4.1e-69; DB 10; 1; Indels Length controlled 260; Pooideae; 1; of two Gaps γď 1;

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01-NOV-1996 (TrEMBLrel. (
01-DEC-2001 (TrEMBLrel. )
C hordein precursor.
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01-NOV-1996 (TrEMBLrel. 01, Created)
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01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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Sainova O.V., Mekl
Anan'ev E.V.;
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Spermatophyta; Magnoliophyta;
Triticeae; Hordeum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-HORDEIN
                                                                                                                                                                                                                                                     Q40055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "[Nucleotide sequence of the barley C-hordein Genetika 29:1070-1079(1993).
EMBL; S66938; AAB28161.1; -.
SEQUENCE 310 AA; 36508 MW; 7A9621869D50D67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hordeum vulgare (Barley).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C-hordein.
                   Spermatophyta; Magnoliophyta; Triticeae; Hordeum. NCBI_TaxID-4513;
                                                                                         Hordeum vulgare (Barley).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                         VPQQ 263
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hedov S.L., Zhelnin L.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            83.0%;
58.6%;
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yta; Liliopsida; Poales; Poaceae; Pooidea
                                                                     Streptophyta; En
/ta; Liliopsida;
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                                                                                                                                                              Created)
Last sequence up
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Pred. No. 8
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                                                                        Embryophyta; Tracheophyta;
a; Poales; Poaceae; Pooidea
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                                                                                                                                                                                       update)
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Best Local
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Best Local
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Q9FUW7;
Q1-MAR-2001 (TrEMBLrel. 16, Created)
O1-MAR-2001 (TrEMBLrel. 16, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
Omega gliadin storage protein.
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STRAIN-BOMI; TISSUE-IMMATURE ENDOSPERM;
MEDLINE-89351278; PubMed-3255313;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Entwistle
                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
Hsia C.C., Anderson O.D.;
"Isolation and characterization of wheat omega gliadin (
"Isolation and characterization of wheat omega gliadin (
submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases
EMBL; AF280605; AAG17702.1; -
                                                                                                                                                                                                                                                                                                                                          Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Trache
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                                                  Triticum aestivum (Wheat).
                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=4565;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PQYQIPTPLQPQQPF----PQQPQQPLPRPQQPFPWQPQQPFP--QPQEPIPQQPQQPFPQQ 111
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PQQPFPQPQQPESWQPQQPFLQPLQLXPLQAQQPFPLQPQLPFPQPQQPIGQQPKQPLLQ
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                                                                 PQQPFPQQPQPFPQQPQQIIFQQPQQYYPVQPQQPFPQQPQ---PVPQQ
                                                                                                        FTQPQQPTP1QPQQPFPQQPQQPFPQQPFPQQPFPQTQQFFPQQQFFPQQ
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347 AA;
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                                                                                                                                                                                                                                      280 AA;
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54.3%;
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C HORDEIN.
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                                                                                                                                                                                                      DB 10;
1.7e-45;
                                                                                                                                                                                                                                                                                                                                                          Embryophyta; Tracheophyta;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             barley.";
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RESULT OCCUPANT OCCUP
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01-NOV-1996 (Tri
01-DEC-2001 (Tri
Sec1 precursor.
                                                             Signal.
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                Spermatophyta; Magnoliophyta; Liliopsida; Triticeae; Secale.
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Q05573;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Secale cereale (Rye).

Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldea

Triticeae; Secale.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUL-1997
01-JUL-1997
01-DEC-2001
                                                                                                                                          "Isolation and characterisation of genes containing a highly repetitive sequence melant Mol. Biol. 17:1111-1115(1991).
                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=CV. GAZELLE; TISSUE=ENDOSPERM;
MEDLINE=92032773; PubMed=1932685;
Hull G.A., Halford N.G., Kreis M., Shewry P.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Secale cereale (Rye).
Eukaryota; Viridiplantae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEC1
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EMBL; AF000227; AAB58403.1; -.
SEQUENCE 357 AA; 41625 MW; E321965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            004365;
      SEQUENCE
                                 CHAIN
                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=4550
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MEDLINE=97094352;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TPIQPQQPFPQQPQQPFSQPQQQLPLQPQQPFPQQPQPIPQQPQQSFPQQPQRPEQQFPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TPLQPQQPFPQQPQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQP---FPQ
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                                                                                                                    x60295;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 68.6
09; Conservative
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357 /
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6 (TrEMBLrel.
1 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4352; PubMed=8939819; Mukai Y., Appels R.; ocus on the short arm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                    CAA42837.1;
      AA;
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357
      41439
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19,
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      W.
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Pred. No. 7.1e
11; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Last sequence update)
Last annotation update)
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                           POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Liliopsida; Poales; Poaceae; Pooideae;
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   8EC406DA8F72909E
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                                                                                                                                                                         s encoding motif.";
                                                                                                                                                                                                                                                                                                                                                                                                                                              Embryophyta; Trach
a; Poales; Poaceae;
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les 30;
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   CRC64;
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Best Local
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SIGNAL
                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

STRAIN=CV. GAZEILE; TISSUE-ENDOSPERM;

MEDLINE-92033773; PubMed-1932685;

Hull G.A., Halford N.G., Kreis M., Shewry P.R.;

"Isolation and characterisation of genes encoding"
                      GSEC2-1
                                       01-MAR-2001
01-MAR-2002
                                                          Q9FR41;
01-MAR-2001
                                                                             Q9FR41
                                                                                                                                                                                                                                                                                                                                                                                                                       Secale cereale (Rye).
Eukaryota; Viridiplantae; Str
Spermatophyta; Magnoliophyta;
  Eukaryota;
           Secale cereale
                               Secalin.
                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                     EMBL;
                                                                                                                                                                                                                                                                                                                            containing a highly repetitive sequence motif."; Plant Mol. Biol. 17:1111-1115(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Secl precursor.
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01-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q43639;
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                                                                                                                                                                          TPLQPQQPFPQQPQQPLPRPQQPFPWQPQQPFPQPQEPIPQQPQQPFPQQPQQP----FPQ 118
                                                                                                                                                                                                                      RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QPQQIIPQQTQQPFPLQPQQPFPQQPQ
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                                                                                                                                                                                                     RQLNPSEQELQSP----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             QPQQIIFQQPQQSYPVQPQQPFPQQPQ 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RQLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RQLNPSEQELQSP-----QQPVPKEQSYPQQPYPSHQPFPTPQQYSPYQPQQPFPQPQQP
                                                                                                                                                                                                                                                                                                                    X60294; CAA42836.1;
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357 AA;
Viridiplantae;
                                       (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                 Secale.
                                                                                                                                                                                                                                           Conservative
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                                                                             PRELIMINARY;
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           (Rye)
                                                                                                                                                                                                                                                                              19 P
357 P
41541 MW;
                                                                                                                                                                                                                                                  62.1%;
67.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62.5%;
70.7%;
                                                                                                                                                                                                    -QQPVPKEQSYPQQPYPSHQPFPTPQQYSPYQPQQPFPQPQQP
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01,
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                                                                                                                                                                                                                                                                                                                                                                                                                        Streptophyta; En
yta; Liliopsida;
Streptophyta; Embryophyta; Tracheophyta;
                                      Last annotation update)
                                               Last sequence update)
                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last sequence up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                   Score 562.5;
Pred. No. 2.
                                                                                                                                                                                                                                                                              POTENTIAL.
POTENTIAL.
; 79570E5CA10D5B1E CRC64;
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No. 1.2e-44;
                                                                             455
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                                                                                                                                                                                                                                                                                                                                                                                                                       Embryophyta; Trach; Poales; Poaceae;
                                                                            AA
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Best Local S
Matches 94
                                                                                                       Query Match
Best Local :
                                                                                           Matches
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                                                                                                                                                     and further understanding of gamma-gliadin gen
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ
EMBL; AF234642; AAK84772.1; -
NON_TER 241 241
                                                                                                                                                                                                                                                                        Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Stra
Spermatophyta; Magnoliophyta;
Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                               01-DEC-2001 (TrEMBLrel. 01-DEC-2001 (TrEMBLrel. 01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                    "The
                                                                                                                                                                                                               STRAIN=CV. CHEYENNE;
Anderson O.D., Hsia C.
                                                                                                                                                                                                                          STRAIN=CV.
                                                                                                                                                                                                                                                                                                                        Gamma-gliadin (Fragment)
                                                                                                                                                                                                                                                                                                                                                                     Q94G98;
                                                                                                                                                                                                                                                                                                                                                                                 Q94G98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pfam; PF00234; tryp_alpha_amyl; 1.
PRINTS; PR00208; GLTADGLUTEN.
PRINTS; PR01217; PRICHEXTENSN.
CHAIN

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455
SECAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "A gene from the Sec2 translocation line.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Murray F.R., Skerritt J.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=CV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=4550;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Secale.
                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                        SEQUENCE FROM N.A
                                                                                                                                                                                                                                                             NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                           133
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                                                                                                        Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ω
                                                                                                                                                                                       rson O.D., Hsia C., Torres V.;
wheat gamma-gliadin genes: characterization of ten new
further understanding of gamma-gliadin gene family struc
                                                                   QLNPCSQELQSPQQSYLQQPYPQNPYLPQKPFPVQQP---FHTPQQYFPYLPEELF----
                                                                                                                                                                                                                                                                                                                                                                                                                                                        QQIIFQQPQQSYPVQPQQPFPQQP-QPVPQQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QVNP-SGQVQCPQQQPFPQPQQSSPQQPQQPFPQQS----
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                    -PQYQIPTPLQPQQPFPQQPQQPLP---RPQQPFPWQPQQPFPQPQE-----PIP 101
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1 (TrEMBLrel. 19,
2 (TrEMBLrel. 21,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   455 AA;
                                                                                                                                          241 AA;
                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                          28079 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51731 MW;
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                                                                                                       48.6%;
57.5%;
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                                                                                                                                                                                                                                                                                   Streptophyta; Er
yta; Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12;
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                                                                                                      Score 440; L
                                                                                                                                                                                                                                                                                                                                  Last sequence update)
Last annotation update)
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2; Mismatches
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                                                                                                                                          A2765A48A35FD6D3 CRC64;
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                                                                                           Mismatches
                                              PQQPFS
                                                                                                                                                                                                                                                                                                                                                                                 241
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                                                                                                                                                                                                                                                                                   Embryophyta; Tracheophyta;
a; Poales; Poaceae; Pooidea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a wheat
                                                                                                        .2e-33
                                                                                                                  DB
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                                                                                                                                                                                         gene family structure.";
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                                                                                            26;
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                                                                                                                                                                            databases
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Best Local .
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Q94G96;
01-DEC-2001
01-DEC-2001
01-MAR-2002
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Triticum aestivum (Wheat).
Trikaryota; Viridiplantae; Streptophyta; Em
Fikaryota; Viridiplantae; Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anderson O.D., Hsia C., Torres V.;
"The wheat gamma-gliadin genes: Characterization of ten and further understanding of gamma-gliadin gene family s Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF234644; AAK84774.1;
                                                                                                                            "Production of a panel of recombinant gliadins for characterization of T cell reactivity in coeliac di
                                                                                                                                                                           Arentz-Hansen E.H., Sollid L.M.;
                                                                                                                                                                                                                                                                                                            Spermatophyta; Magnoliophyta; Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                       Triticum aestivum (Wheat).
                                                                                                                                                                                                                                                                                                                                                                                                Gamma-gliadin (Fragment)
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                                                                                     Submitted (AUG-1999) to the EMBL; AF175312; AAF42989.1;
                                                                                                                                                                                                                                                                                                                                                   Eukaryota;
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01-OCT-2000
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                        InterPro;
                                             InterPro;
                                                                 InterPro;
                                                                                                                                                                                                                         STRAIN-YAMHILL;
                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                   NCBI_TaxID=4565;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QQPQLPFPQQPQQPFPQPQQPFPQLQQPQQPLPQPQQPQQPFPQQQQPLIQ 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               QQPQQPFPQQPQQF--PQQPQQII--FQQPQQ--SYPVQPQQPFPQQPQPVPQ
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    PF00234;
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IPR001954; Glia_glutenin.
IPR001768; Try/amyl_inhbtr
0234; tryp_alpha_amyl; 1.
                                                             IPR003612; AAI.
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                                                                                                                                                                                                                                                                                                                                                   Viridiplantae;
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                                                                                                                                                                                                McAdam S.N., Molberg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      48.6%;
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                                                                                                                                                                                                                                                                                                                                 Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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a; Poales; Poaceae; Pooidea
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a; Poales; Poaceae; Pooidea
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Q94G91;
01-DEC-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                 "The wheat gamma-gliadin genes: characterization of ten new sequences and further understanding of gamma-gliadin gene family structure."; Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.

EMBL; AF234650; ARA84779.1; -
InterPro; IPR001768; Try/amyl inhbtr.

Pfam; PF00234; tryp_alpha_amyl; 1.

SEQUENCE 327 AA; 37169 MW; E46B6A4CB5BDB8C2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                              STRAIN=CV. CHEYENNE;
Anderson O.D., Hsia C.,
                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                           Triticum aestivum (Wheat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gamma-gliadin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID-4565;
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SMART; SM00499; 1
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                                     192
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                                   CKPASLVSSLWSII
                                                                                                        QPQQPFP--QQPQQIIFQQPQQS---YPVQPQQPFPQQPQPVPQQA---
                                                                                                                                                      PTP--LQPQQPEPQQPQPLP---RPQQPFPWQPQQPFF---QPQEPIPQQPQQPFP--Q
                                                                                                                                                                                   QVDPSGQVQWLQQQLVPQLQQPLSQQP-----
                                                                                                                                                                                                         QLNPCSQE---LQSPQQSYLQQPYPQNPYLPQKPFPVQQPFHTPQQYFPYLPEELFPQYQI
                                                                                OPOOPFPQLQQPQQ-PFPQPQQQLPQPQQPQQSFPQQQRPF1QPSLQQQLNPCKNILLQQ
                                                                                                                               QPQQPFPQLQQPQQ-PFPQPQQQLPQQPQQSFPQQQRPFIQPSLQQQLNPCKNILLQQ 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OPOQPEP--QQPQQIIFQQPQQS--YPVQPQQPFPQQPQPVPQQA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PQQPFLQPQQPFPQQPPQQPFPQTQQPQQPFPQTQQPQQPFPQQPQQPFPQTQ 113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PTP--LQPQQPEPQQPLP---RPQQPFPWQPQQPFP---QPQEPIPQQPQQPFP--Q 110
                                                                                                                                                                                                                                          97;
                                                                                                                                                                                                                                                   Similarity
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                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -SCIWSMV 158
                                                           SCIWSMV 158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAI;
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                                   205
                                                                                                                                                                                                                                                45.5%; Score 412; DB 10; 50.0%; Pred. No. 1.6e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45.5%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                              Torres V.;
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Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 412; DB 10;
Pred. No. 1.5e-30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                                                                                  -QQTFPQPQQTFPHQPQQQVPQPQQ
                                                                                                                                                                                                                                                              DB 10;
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                                                                                                                                                                                                                                      37;
                                                                                                                                                                                                                                                           Length 327;
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Best Local S
Matches 87
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01-MAR-2001 (TrEMBLrel.
01-MAR-2001 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
InterPro; IPR001954; Glia_glutenin. InterPro; IPR001768; Try/amyl_inhbtr Pfam; PF00234; tryp_alpha_amyl; 1. PRINTS; PR00208; GLIADGLUTEN. NON_TER 1
                                                                                                                                                             Aegilops speltoides (Goat grass).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; Lilliopsida; Poales; Poaceae; Pooideae;
Triticeae; Aegilops.
                                                         "Polymorphisms in two homeologous evolution of cultivated wheat."; Genet. Resour. Crop Evol. 0.0-0(0) EMBL; AJ389720; CAC10624.1; -.
                                                                                                        von Bueren M.;
                                                                                                                  SEQUENCE FROM N.A.
STRAIN-CV. ACCESSION PI 542245;
                                                                                                                                                    NCBI_TaxID=4573;
                                                                                                                                                                                                                       Gamma gliadin (Fragment).
                                                                                                                                                                                                                                                                                   Q9FTC1
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01-MAR-2001 (TrEMBLrel. 16,
01-JUN-2002 (TrEMBLrel. 21,
03mma-gliadin (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9FTC2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Aegilops speltoides (Goat grass).
Eukaryota: Viridiplantae: Streptophyta:
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InterPro; IPR001768; Try/amyl_inhbtr
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STRAIN=CV. ACCESSION PI 449340;
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87; Conserv
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255 AA;
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30265 MW;
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                                                                                           gamma-gliadin
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RESULT 15
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Best Local Similarity
Matches 94; Conserv
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Matches 91
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SEQUENCE
                                                                                                                                                                                                                                                                                       STRAIN-CV. CHEVENNE;
Anderson O.D., Hsia C., Torres V.;
Anderson O.D., Hsia C., Torres V.;
Anderson O.D., Hsia C., Torres V.;
The wheat gamma-gliadin genes: characterization of ten new sequences and further understanding of gamma-gliadin gene family structure.";
submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF23.647; AAK84777.1; -.
InterPro; IPR001768; Tryyamyl_inhbtr.

Pfam; PF00234; tryp_alpha_amyl; 1.
SEQUENCE 302 AA; 34286 MW; 663B37C768BAE782 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gamma-gliadin.
Triticum aestivum (Wheat).
Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
Triticeae; Triticum.
NCBI_TaxID=4565;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q94G93;
01-DEC-2001 (TrEMBLrel. 19,
01-DEC-2001 (TrEMBLrel. 19,
01-JUN-2002 (TrEMBLrel. 21,
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                                                                                                                 QTYPHQPQQQFPQTQQPQQPFPQPQQTFPQQPQLPFPQQPQQPFPQPQQPFPQSQQP 131
                                                                                                                                   IPTPLQPQQPFP--QQPQQPLPRPQQPFPWQPQQPFP--QQPQEPI---PQQPQQPFP--QQP 112
                                                                                                                                                                                                                                                 Similarity
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256 AA;
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30456 MW; 8D2B52ED7B6CF9E0 CRC64;
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                2003, 14:46:48
                                                                                                                                                                                                                                   42.4%; Score 384.5; DB 10; Length 302; 58.0%; Pred. No. 5.1e-28; Live 11; Mismatches 28; Indels 27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Score 393.5; DB 10; Length
; Pred. No. 6.4e-29;
13; Mismatches 21; Indels
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Last sequence update)
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Post-processing: Minimum Match 0% Maximum Match 100%
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Maximum DB seq length: 2000000000
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Perfect score:
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   2054640 seqs, 14551402878 residues
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

RESULT 1
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ACCESSION Z8456
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KEYWORDS BARE
SOURCE HOrde
ORGANISH Horde

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HYE1393YR
H.Vulgare BARE-1 long terminal repeat DNA; ID E1393VR.
Z84569
Long terminal repeat DNA; ID E1393VR.
Z84569.
G1:2598547
BARE-1 retrotransposon; long terminal repeat.
Hordeum vulgare
Hordeum vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnollophyta; Liliopsida; Poales; Poaceae;
Pooideae; Triticeae; Hordeum.
1 (bases 1 to 388)
Suoniemina, A., Schmidt, D. and Schulman, A.H.
BARE-1 insertion site preferences and evolutionary conservation of

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41; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Submitted (24-Jan-1997) Schulman A.H., University of Helsinki, Institute of Biotechnology, P.O. Box 56, Biocentre 1, Viikinkaari 9, FIN-00014 Helsinki, Finland
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Direct Submission
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41;
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Direct Submission
Submitted (24-JAN-1997) Schulman A.H., University of Submitted of Biotechnology, P.O. Box 56, Biocentre 9, FIN-00014 Helsinki, Finland
                                                                                                                                                                                                                                                                                                                                     BARE-1 insertion site preferences and
RNA and cDNA processing sites
Genetica 100 (1-3), 219-230 (1997)
98103449
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Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
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Suoniemi, A., Schmidt, D. and Schulman, A.H.
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/db_xref="taxon:4513"
142. .>273
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94 c 87 g
                                                                  /note="flanking genomic sequence matches BARE-la
retrotransposon (Z17327) nt 308-439"
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417. .548
                                                                                                                                        /note="matches nt 1682-1829 <153. .300
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/db_xref="taxon:4513"
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AR170979
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Klebsiella pneumoniae dihydrofolate reductase (dhfrXII) and streptomycin 3''-adenylyltransferase (aadA2) genes, complete cds;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 (bases 1 to 1222)
Waters,B., Miao,V., Ho,Y.Wai. and Tong,S.Kah.
Method for isolation of biosynthesis genes for bioactive molecules
Patent: US 6297007-A 83 02-OCT-2001;
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                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                              and unknown gene.
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361 c 319 g
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1. .1222
                                                                                                                       /gene="dhfrXII"
137. .634
                                                                                                                                                   /note="
137. .6
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/db_xref="GI:6003515"
                                                                                                                                                                           /transposon="class I integron"
128. .131
                                                                                                                                                                                                                  /organism="Klebsiella
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                                                                                              /gene="dhfrXII"
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Botstein, D.A., Cohen, R.L., Goddard, A.D., Gurney, A Lawrence, D.A., Levine, A.J., Pennica, D., Roy, M.Ańn, WISP polypeptides and nucleic acids encoding same Patent: US 6387657-A 51 14-MAY-2002;
                                                                                                                                                                                                                                                             AR210350 16
Sequence 51 from patent US
AR210350
                                                                                                                                                                                                                                                                                                                                                                                                 35; Conser
                                                                                                                                                                                                       Unclassified.
                                                                                                                                                                                                                    Unknown.
                                    Similarity 92.3
36; Conservative
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GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG
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1. .163
                                                                                           /organism="unknown"
45 c 46 g
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LQFGEWQRNDILAGIFEPAMIDIDLAILLTKAKEHSVALVGPAAEEFFDPVPEQDLFE
ALRETLKLWNSQPDWAGDERNYVLTLSRIWYSAITGKIAPKDVAADCAIKRLPAQYQP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="streptomycin 3''-adenylyltransferase"
/protein_id="AAF00481.1"
/db_xref="GI:6003517"
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/protein_id="AAF00480.1"
/db_xref="GI:6003516"
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/gene="aadA2"
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1044. .1047
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Local Similarity
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Unclassified.
1 (bases 1 to 4
Frudakis, T.N., 5
Gnetum gnemon GGM13.
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AX316838
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Sequence
AR147996
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                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                           cancer
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Location/Qualifiers
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                                                                                                                                         Similarity
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/db_xref="taxon:9606"
138 c 126 g 116
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138 c 126 g
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US
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No. 0.46;
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Gnetum gnemon
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AJ13221
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Max-Planck-Institut for
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                                                             MADS-box genes reveal that gnetophytes conifers than to flowering plants Proc. Natl. Acad. Sci. U.S.A. 96 (13),
                                                                                                                                                Spermatophyta; Gnetophyta; 1 (bases 1 to 1447)
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                                                                                                                               Winter, K.U., Becker, A., Munster, T., Kim, J.T.,
                                                                                                                                                                                                   Gnetum gnemon
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                 (bases 1 to 1447)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NSHLCRLLAEQQAAVEGVQEPLLEFGVFCPPPDNKTAAAANAGPLHLGHHLPAFRLQP
TQPNLQESSIVPNRPVLQL"
271 c 297 g 308 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /translation="MGRGKIEIKRIENTTNRQVTFSKRRGGLLKKAHELSVLCDAELG
LIIFSSSGKLFEYSSASSSMKKIIERYQKVSGARITEYDNQHLYCEMTRMKNENEKLQ
TNIRRMMGEDLTSLTMTELHHLGQQLESASSRVRSRKNQLMLQQLENLRRKERILEDQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="putative MADS domain transcription factor GGMl3"
/protein_id="CAB44459.1"
/db_xref="GI:5019464".
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="ggm13"
/note="floral homeotic gene"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="
167..8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /db_xref="taxon:3382"
167, .880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sub_species="gnemon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Gnetum gnemon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Becker, A., Munster, T., Kim, J.T., Saedler, H. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23.98;
97.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .880
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 33.4; DB Pred. No. 0.78;
                                                                                                                                                                                                                                  transcription factor
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; Gnetopsida; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96 (13), 7342-7347 (1999)
                                                                  96 (13), 7342-7347 (1999)
                                                                                                                                                                                                                                                                                                    MADS
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                                                                                                                                                                                                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                    domain transcription factor
                                                                                                                                                                                                                                                                                                                                                                                                        76
                                                                                                                                                                   ; Embryophyta; Tracheophyta; Gnetales; Gnetaceae; Gnetum
                                                                                                   are more closely
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1271;
                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                    Saedler, H.
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TITLE
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JOURNAL
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205
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Michelmore,R.W., Shen
RG polynucleotides fo
plants
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AR195508
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Max-Planck-Institut for
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Submitted (12-JAN-1999)
Max-Planck-Institut for
                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
37; Conser
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                                                34;
                                                                                                                                                                                                                      Unclassified
                                                                                                                                                                                                                                    Unknown
                                                                                                                                                                                                                                                Unknown
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                                                                                                                                                            Patent: US 6350933-A 93
                                                            Similarity
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                                                                                                                                                                                                                                                                                                                                                                                   GCATGCTCCCGGCCGCCATGGCCCGCGGGATTGTCATGAGGCAA 53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="MGRGKLAMKYIEQKNSRQVTFSKRKNGLKKKVTELSILCGAEIA LVIFSNTGKLYSHVGKHGSLNQIIHRYLQNPHAQLRYDQIFQTTLTVAKEDKKFDLCR FFSDLRELMQELESVPNLELQSLEDELQLATYKVRKKEEAAAKEYDSLQMDLELMLK QNSELQKELREKKELLEDRHRALOWGFQQLMGVDDPGSISQTMESSCVYSSVDDRTSFL ALQVSSFAVSSFSSVKPGKTLLMLI"

3 372 t 1 others
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                                                                                                                                                                                                                                                                                               93
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/product="putative MADS domain transcription factor GGM6"
/protein_id="0,4844452.2"
/db_xref="GI:6468288"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /db_xref="taxon:3382"
306. .1037
                                                                                                           /organism="unknown"
940 c 1051 g
                                                                                                                                              Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /sub_species="gnemon"
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                                                            23.9%;
97.1%;
                                                                                                                                                                                               Shen, K.A.
                                                                                                                                                                                                                                                                                             5506 bp
patent US 6350933.
                                                                                                                                                                                 hen,K.A. and Meyers,B.C for conferring powdery
                                                                                                                                                                                                                                                                                                                                                                                                                       Score 33.4; DB Pred. No. 0.81; 0; Mismatches
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                                                            Score 33.4; D. Pred. No. 1.1;
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Breeding R
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                                                                                                                                                            26-FEB-2002;
                                                   Mismatches
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                                                                                                               1717
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RESULT

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BASE COUNT
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AUTHORS
TITLE
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AUTHORS
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MEDLINE
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                                                     Domiati-Saad,R. and Lipsky,P.E.
Staphylococcal enterotoxin A induces survival of vH3-expressing human B cells by binding to the VH region with low affinity
J. Immunol. 161 (3), 1257-1266 (1998)
2 (bases 1 to Domiati-Saad, R.
                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae | (bases 1 to 345)
                                                                                                                                                                                    antigen receptor; immunoglobulin; immunoglobulin
immunoglobulin superfamily; variable region.
                                                                                                                                                                                                                                                H.sapiens mRNA for immunoglobulin (A3-8; VH3, 3-15/DP-38).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 (bases 1 to 5507)
Meyers,B.V., Shen,K.A., Rohani,P.J., Baut
Direct Submission
Submitted (17-DEC-1998) Vegetable Crops,
Davis, CA 95616, USA
                                            98349375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Meyers,B.C., Shen,K.A., Rohani,P., Gaut,B.S. Receptor-like genes in the major resistance subject to divergent selection Plant Cell 10 (11), 1833-1846 (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Meyers,B.C., Chin,D.B., Shen,K.A., Sivaramakrishnan,S. Lavelle,D.O., Zhang,Z. and Michelmore,R.W.

The major resistance gene cluster in lettuce is highly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Lactuca sativa
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
Asteridae; euasterids II; Asterales; Asteraceae; Lactuceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lactuca sativa RGC2D pseudogene,
AF113953 AF072270
AF113953.1 GI:4150855
                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                   Z96972.1 GI:2370221
                             9686586
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                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:4236"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism≖"Lactuca sativa"
/cultivar="Diana"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
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            345)
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Pred. No. 1.1;
0; Mismatches
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                                                                                                                             Hominidae;
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                                                                                                                                                                                                                                                                        linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      locus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and
                                                                                                                                                                                                                                                         variable region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       highly duplicated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Michelmore, R.W. s of lettuce are
                                                                                                                                                                                                  heavy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     148
                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                          PRI 05-MAY-2001
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                                                                                                                                                                                                  chain;
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Rattus no
***, 66 u
Muzny, D.M.,
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                                                                                                  AC107595
AC107595.3 GI:21737300
HTG; HTGS_PHASE1.
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AR210351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (23-JUN-1997) Domiati-Saad R., Department of Medicine, Harold C. Simmons Arthritis Research Center, Medicine, Harold C. Simmons Arthritis Research Center, Union
                                                                                                                                                                                                                                                                                 35,
                                                                                                                                                                                                                                                                                                                                                                                           Botstein,D.A., Cohen,R.L., Goddard,A.D., Gurn
Lawrence,D.A., Levine,A.J., Pennica,D., Roy,N
WISP polypeptides and nucleic acids encoding
Patent: US 6387657-A 52 14-MAY-2002;
                                                                          Rattus norvegicus
                                                                                    Norway rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unknown
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                                       Rattus
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                                                               Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Unknown.
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/db_xref="taxon:9606"
/chromosome="14"
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83 c 116 g 70
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                                                  Eutheria;
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Pred. No. 1;
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Sciurognathi; Muridae; Murinae;
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arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence

is not known and their order in this sequence record

as soon as it is available and the accession number will

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Delaney, K.R., Delgado, O., Denn, A.L., Ding, Y., Dinh, H.H.,
Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J.,
Earnhart, C., Edgar, D., Elwards, C.C., Elhaj, C., Escotto, M.,
Earnhart, C., Edgar, D., Flagg, N., Ford, J., Foster, P., Frantz, P.,
Falls, T., Ferraguto, D., Flagg, N., Ford, J., Foster, P., Frantz, P.,
Gabisi, A., Gao, J., Garcia, A., Garner, T., Garza, N., Gill, R.,
Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K.,
Harris, K., Hart, M., Havlak, P., Hawes, A., Hernandez, J.,
Harris, C., Harris, K., Hart, M., Havlak, P., Hawes, A., Hennandez, J.,
Hernandez, O., Hodgson, A., Hogues, M., Holloway, C., Hollins, B.,
Homsi, F., Howard, S., Huber, J., Hulyk, S., Hume, J., Jackson, L.E.,
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Karlsson, E., Kelly, S., Khan, U., King, L., Korvah, J., Kovar, C.,
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Lozado, R.J., Lu, X., Lucier, A., Lucier, R., Luna, R., Ma, J.,
Massey, E., Mawhiney, E., McLeedd, M.P., Meador, M., Martinez, E.,
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Moser, M., Neal, D., Newtson, J., Newtson, N., Nguyen, A., Nguyen, N.,
Nguyen, N., Nickerson, E., Nwokenkwo, S., Oguh, M., Okwuonu, G.,
Peters, L., Pickens, R., Primus, E., Pu, L.L., Quiles, M., Ren, Y.,
Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G.,
Sodergre, E., Sonaike, T., Sparks, A., Stanley, H., Stone, H.,
Sutton, A., Svatek, A., Tabor, P., Tamerisa, A., Tamerisa, K., Thomas, N., Thomas, S.,
Williams, G., Walliamson, A., Walczyk, R., Woden, S., Warley, K.,
Wu, C., Wu, Y., Wu, Y.F., Zhou, J., Zorrilla, S., Nelson, D.,
Weinstock, G. and Gibbs, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Barbaria, J., Benton, J., Bimage, K., Blankenburg, K., Bonnin, D., Bouck, J., Bowie, S., Brieva, M., Brown, E., Brown, M., Bryant, N.P., Buhay, C., Burch, P., Burkett, C., Burrell, K.L., Byrd, N.C., Carron, T.F., Carter, M., Cavazoo, S.R., Chacko, J., Chavez, D., Chen, G., Chen, R., Chen, Z., Chowdhry, I., Christopoulos, C., Cleveland, C.D., Cox, C., Coyle, M.D., Dathorne, S.R., David, R., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A., Davila, M.L., Davis, C., Davy-Carroll, L., Dederich, D.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA 3 (bases 1 to 155394)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Worley, K.C.
Direct Submission
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                                        NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).
NOTE: This is a 'working draft' sequence. It currently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 155394)
                                                                                                                                                                                                           Chemistry: Dye-terminator Big Dye: 100% of reads Assembly program: Phrap; version 0.990329 Consensus quality: 103821 bases at least Q40 Consensus quality: 113213 bases at least Q30 Consensus quality: 113213 bases at least Q20
                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequencing vector: Plasmid;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center clone name: CH230-273L5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Center project name: GOWP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: hgsc-help@bcm.tmc.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center code:
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Submitted (24-UAN-1997) Schulman A.H., University of Helsinki,
Institute of Biotechnology, P.O. Box 56, Biocentre 1, Vilkinkaari
9, FIN-00014 Helsinki, Finland
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Genetica 100 (1-3), 219-230 (1997)
98103449
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2 (bases 1 to 278)
                                                                                                                             Similarity
                                                                                                                 Conservative
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                                                                                                                                                                                                                                                                                     /organism="Hordeum vulgare"
/db_xref="taxon:4513"
<1. .89
                                                                                                                                                                                    /transposon="BARE-1"
65 c 57 g
                                                                                                                                                                                                                  /note="matches nt 1-89 of BARE-1 5' LTR, 5' terminus" 90...222
                                                                                                                                                                                                                                                         /note="flanking genomic sequence matches BARE-la
retrotransposon (217327) nt 1990-2078"
                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                             23.18;
97.18;
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                                                                                                                             Score 32.4; D
Pred. No. 1.3;
                                                                                                               Mismatches
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Database
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
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                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic search, using sw model
                                                                                                                                                                                                            N_Geneseq_101002:*

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3: /SIDS2/gcgdata/gg
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/SIDS2/gcgdata/geneseq/geneseqn-embl/NA1981.DAT:*
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SUMMARIES
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Compugen Ltd
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AAI57799 AAX76514	AAV69558 AAI58172	AAZ45987 AAK51591 AAI57798	AAZ45985 AAZ45973	ID
Human polynucleoti WISP 5' cloning si	Soil derived pepti	cDNA encoding a sy Human polynucleoti Human polynucleoti	Fragment of pJANG- PCR primer used to	Description

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		19 21 21 22 22	20 20 20 20 20	
ANV68913 AAV68913 AAC80897 ABK46787 AAS99743 AAZ57434 AAT14818 AAT14818 AAT94303 AAI59000	572 580 580 169 169	AAV49815 AAD00759 AAV49816 AAD00760 AAD32962 AAA97483 ABA06304	AAC80887 ABK46777 AAS99733 ABK67846 AAV44234 ABA06302 ABA93132 ABA93132 AAX76515	AAX55630 ABN84401 ABN84400 AAX83364 AAV68904
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encod tumou tumou r-spec erpool cyte-s omoter cleoti	silk p tumou the h the l novel	III PCR broduct III PCR CR prod methyl america	east tumou east tumou east resis pest resis resistance SCN/SCS r us Bursal cloning si	_ H O O P

ALIGNMENTS

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RESULT 1
AAZ 45985
ID AAZ 4
XX AAZ 4
XX AAZ 4
XX Blut Frag
XX Glut KW breas
XX Glut KW breas
XX Glut KW breas
XX Glut COS
FH Key
FT CDS
FT CDS
XX WO21
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XX DA GO A
XX A GO A
PA (GO PA)(GO PA (GO PA (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glutenin; seed storage protein; gluten; bread; pasta; noodle; breakfast cereal; snack food; cake; pastry; flour based sauce; film; coating; adhesive; building material; packaging material;
(CSIR ) COMMONWEALTH SCI & IND RES ORG. (GOOD-) GOODMAN FIELDER LTD. (LIMA-) GRP LIMAGRAIN PACIFIC PTY LTD.
                                                                                                                                                                                            10-JUL-1998;
                                                                                                                                                                                                                                                                                        12-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                               20-JAN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200002914-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hordeum vulgare.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fragment of pJANG-deltaCys7Cys236 plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-APR-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAZ45985;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ45985 standard; cDNA; 140 BP
                                                                                                                                                                                       98AU-0004604.
                                                                                                                                                                                                                                                                                   99WO-AU00563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers 45..107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /*tag=
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grain;

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RESULT 2
AAZ45973/c
ID AAZ450
The present sequence represents a fragment of the pyANG-deltaCys7Cys236 cc plasmid. This plasmid encodes a barley glutenin, and is used in the course of the invention to produce modified glutenin. The specification cc course of the invention to produce modified glutenin. The specification cc describes a method for producing a modified glutenin or seed storage cc incorporate into gluten, or to bind a ligand or other macromolecule. The cdomain can be any domain that will bind ligands that may be useful in cc domain can be any domain that will bind ligands that may be useful in cc food preparation or in food composition, e.g. a domain that binds lipids cor starch. The method is used for producing modified glutenins. Glutenins cc and seed-storage protein are useful for preparing food products such as cleavened or unleavened breads, pasta, noodles, breakfast cereals, snack cc leavened or unleavened breads, pasta, noodles, breakfast cereals, snack cc and seed-storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging cc such as films, coatings, adhesives, building materials and packaging cated-storage protein is useful for preparing food products. The modified clutenins and seed-storage proteins are also useful as modifiers of containing the modified sutenin and containing the modified sutenin and containing the modified sutenin and containing the modified containing the modified sutenin and containing flows are also useful as modifiers of containing the modified sutenin and containing 
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Modifying glutenin or seed-storage protein for preparing foodStuffs, films, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB; AAY54566
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ45973 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 140 BP; 34 A; 41 C; 36 G; 29 T;
                                                                                                                                                                                                                         Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                       noodle; breakfast cereal;
                                                                                                                                                                                                                                                                                                                                                                                                                          PCR primer used to amplify a 447 bp fragment of C hordein gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25-APR-2000
10-JUL-1998;
                                                  12-JUL-1999;
                                                                                                              20-JAN-2000
                                                                                                                                                                   WO200002914-A1
                                                                                                                                                                                                                                                                                                         film; coating; adhesive; building material;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    products in food industry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   140;
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                                                                                                                                                                                                                                                                                                                                       gene; glutenin; seed storage protein; gluten; bread; pasta;
reakfast cereal; snack food; cake; pastry; flour based sauce
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                     99WO-AU00563
  98AU-0004604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
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Pred. No. 1.1e-38;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                               cake; pastry; flour based
erial; packaging material;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0 other;
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                                                                                                                                                                                                                                                                                                                  | sauce;
| grain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
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δÃ Db 80

Q Вb

В

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RESULT 3
AAZ45987
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cc (approximately 2/3 of the whole gene) of the barley C hordein gene. This cc (approximately 2/3 of the whole gene) of the barley C hordein gene. This cc gene encodes a glutenin, and was modified according to the method of the invention. The specification describes a method for producing a cc modified glutenin or seed storage protein, by adding to the protein a cc domain that confers the ability to incorporate into gluten, or to bind cc domain that confers the ability to incorporate into gluten, or to bind cc composition, e.g. a domain that binds lipids or starch. The method is c composition, e.g. a domain that binds lipids or starch. The method is cused for producing modified glutenins. Glutenins and seed-storage cc unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, c qualities and foods containing flour based sauces. Glutenins and code storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging comaterials. Grain or parts of grain containing the modified glutenin and seed-storage protein is useful for preparing food products. The modified containing and seed-storage protein are also useful as modifier of food products in food industry.
Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
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(GOOD-)
(LIMA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-147597/13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 11; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Appels R, Morell M,
                                                                                                                                                                                                                                       film;
                                                                                                                                                                                                                                                     C hordein gene; glutenin; seed storage protein; gluten; bread; pasta; noodle; breakfast cereal; snack food; cake; pastry; flour based sauce
                                                                                                                                                                                                                                                                                                  cDNA encoding a synthetically trucated C hordein protein (glutenin).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 51 BP; 11 A; 11 C; 15 G; 14 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                 AAZ45987 standard; cDNA; 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       products in food industry.
                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                        SS.
                                                                                                                                                                                                                                                                                                                                   25-APR-2000 (first entry)
                                                                                                                                                                                       Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ing glutenin or coatings, packi
                                                                                                                                                                                                                                       coating; adhesive; building material; packaging material; grain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               45 GTCCCCCAACAACCTTCATGCATATGGAGTATGGTCTAGGGATCC 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69 GTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAGGGATCC 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMMONWEALTH SCI & IND RES ORG
GOODMAN FIELDER LTD.
GRP LIMAGRAIN PACIFIC PTY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in or seed-storage protein for preparing foodstuffs, packing materials, adhesives and building materials
/transl_except=
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1..477
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Pred. No.
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   58..60,
313..315
316..318
319..32
322..324
337..33
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   3..315, aa: Gln)
6..318, aa: Gln)
9..321, aa: Pro)
2..324, aa: Phe)
7..339, aa: Gln)
0..342, aa: Gln)
                                                                                                aa:
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RESULT 4
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bind ligands that may be useful in food preparation or in food is composition, e.g. a domain that binds lipids or starch. The method is used for producing modified glutenins. Glutenins and seed-storage protein are useful for preparing food products such as leavened or unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, pastries and foods containing flour based sauces. Glutenins and seed-storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging materials Grain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or parts of grain containing the modified glutenin and seed-storage protein is useful for preparing food products. The modified glutenins and seed-storage proteins are also useful as modifiers of food products in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hordein protein, which is a glutenin. The protein is designated ANG-deltaCys7Cys236, and is modified, according to the method of the invention. The specification describes a method for producing a modified glutenin or seed storage protein, by adding to the protein a domain that confers the ability to incorporate into gluten, or to bind
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Modifying glutenin or seed-storage protein for preparing foodstuffs, films, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P-PSDB; AAY54568
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Human; cytokine; cell proliferation; cell differentiation; gene therapy;
vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
tissue growth factor; immunomodulatory; cancer; leukaemia;
                                                                                                                                                                       06-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 477 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Fig 3; 76pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (LIMA-) GRP LIMAGRAIN PACIFIC PTY LTD.
                                                                                                                                                                                                                                                                                     AAK51591 standard; cDNA; 1949 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence encodes a synthetically truncated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CSIR ) COMMONWEALTH SCI & IND RES ORG (GOOD-) GOODMAN FIELDER LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ligand or other macromolecule. The domain can be any domain that will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                  424 CAACAACCTCAACCAGTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAG 477
                                                                                                                 polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    54 CTAAACCCTTGCAGCGTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAG 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             45;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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/transl_except=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28.3%;
                                                                                                                    SEQ ID NO 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; 186 C; 43 G; 86 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bekes F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 39.6; DB 21 Pred. No. 0.00076;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tamas L;
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352.
358.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9;
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Pro)
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designated
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RESULT 5
AAI57798
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27-APR-2000;
20-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to polynucleotides (AAK51456-AAK53435) and the encoded polypeptides (AAM8323-AAM8032) that exhibit activity elating to cytokine, cell prolliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The polynucleotides and polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopolesis regulating activity, tissue growth factor activity, immunomodulatory activity and activity, inhibit activity and may be useful in the diagnosis and/or activity inhibit activity and may be useful in the diagnosis and/or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tang YT,
Zhao QA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nucleic acids encoding polypeptides with cytokine-like activities, useful in diagnosis and gene therapy - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-SEP-2000;
20-OCT-2000;
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                     Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAI57798 standard; cDNA; 1630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1949 BP; 484 A; 434 C; 517 G; 514 T; 0 other;
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                                                                                                                                                                                                 Human polynucleotide SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                     22-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             intlammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                treatment of cancer, leukaemia, nervous system disorders, arthritis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         missing at the time of publication
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTGCAGC 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 816-818; 6221pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wang D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0620325.
2000US-0654936.
2000US-0663561.
2000US-0693325.
                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000us-0598075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0560875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0496914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Drmanac RT, Asundi V, Zhou P, Wang J, Zhang J, Ren F, Cher Wejhrman T, Goodrich R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   25.4%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35.6; DB
No. 0.027;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1949;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xu C, Ci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cao Y,
Vang ZW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ď
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amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;

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EXX DXX ACX D
                                                                                                          RESULT 6
AAV69558/c
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                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                  Query Match
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25-APR-2000;
09-JUL-2000;
19-JUL-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-2000;
19-OCT-2000;
29-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tang YT,
Wang J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chemokinetic;
leukaemia; ss
                                                                                                                                                                                                                                                                                                                                                     The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200153312-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel nucleic acids and such as central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26-DEC-2000; 2000WO-US34263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                               Activin/inhibin activity, chemotactic/chemokinetic activity, haemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                          Sequence 1630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1;
                                                                                                                                                                                                                                                                                             Note: The sequence data
                       Soil derived peptide synthase clone ps3 DNA
                                                15-MAR-1999
                                                                                                AAV69558 standard;
                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2001-442253/47.
DB; AAM38642.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QA,
                                                                                                                                                                                                                                                                                                           disorders
                                                                                                                                                                                  11
                                                                                                                                                            10
                                                                                                                                                                                                         1 Similarity
42; Conserv
                                                                                                                                                                                                                                                                                                                     for receptor activity, arthritis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Liu C,
Wang Z,
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 1; 10078pp;
                                                                                                                                                           GCATGCTCCCGGCCCATGGCCGCGATTTTCCCGGGTCGACGATTTCGTT
                                                                                                                                                                                  GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; 2000US-0598042.
; 2000US-0620312.
; 2000US-0653450.
; 2000US-0662191.
; 2000US-0693036.
; 2000US-0727344.
                                                                                                                                                                                                             Conservative
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2000US-0552317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  thrombolytic; drug screening; arthritis; inflammation;
                                                (first entry)
                                                                                                                                                                                                                                                           BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Asundi V, Ch
Wehrman T, >
, Goodrich R,
                                                                                                                                                                                                                                                          392 A; 422 C; 438 G; 378 T;
  soil;
                                                                                                 DNA;
                                                                                                                                                                                                                       25.3%;
79.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                polypeptides, useful system injuries -
                                                                                                  1222
                                                                                                                                                                                                                                                                                              for this patent did not form part
  lichen; antibiotic biosynthesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chen R, Ma Y,
, Xu C, Xue AJ,
R, Drmanac RT;
                                                                                                                                                                                                             0;
                                                                                                                                                                                                            Score 35.4; DB Pred. No. 0.03; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English.
                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                         inflammation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qian >
Yang
                                                                                                                                                                                                                                     22;
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                                                                                                                                                                                                             11;
                                                                                                                                                                                                                                                              0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     XΒ,
                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ren F.
Zhang
      Sumud
                                                                                                                                                                                                                                     1630;
                                                                                                                                                                                                                                                                                                  of the
                                                                                                                                                                                                                                                                                                                          leukaemias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 F,
                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wang
                                                                                                                                                               62
                                                                                                                                                                                       63
                                                                                                                                                                                                             Gaps
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RESULT 7
AAI58172/c
рь
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Best Local S
Matches 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                            This sequence encodes a peptide synthase clone, isolated from soil. This protein is used in a method for the recovery of antibiotic blosynthetic DNA from humic materials or lichen. The PCR products of the invention have the potential to be used as therapeutic molecules including antibiotics, immunosuppressors and antitumour agents. The method allows access to the reservoir of genetic diversity in soil pathogenic micro-organisms, in order to find new antibiotics. It also allows access to novel biosynthetic genes/enzymes that can be used to produce antibiotics or produce specific compounds, enzymatically,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               therapeutic; immunosuppressor; antitumour agent; pathogen; genetic diversity; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Miao VPW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W09853097-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 17; Page 80; 98pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            26-NOV-1998
                                                                                                                                        Human; nootropic; immunosuppressant; cytostatic; gene therapy; cance; peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TERR-) TERRAGEN DIVERSITY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      in vitro
                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                   AAI58172;
                                                                                                                                                                                                                                                                           AAI58172 standard;
                                                                                                                               chemokinetic; thrombolytic;
                                                                                                                                                                                                                             22-OCT-2001
21-JAN-2000; 2000US-0488725
                       26-DEC-2000;
                                                                       WO200153312-A1
                                                                                             Homo sapiens
                                                                                                                  leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         degenerate primers - used
from soil/lichen material
                                                                                                                                                                                                                                                                                                                                      1176
                                                                                                                                                                                                     polynucleotide
                                                                                                                                                                                                                                                                                                                                                           11
                                                                                                                                                                                                                                                                                                                                                                                37; Conservative
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                                                                                                                                                                                                                                                                                                                                      GCATGCTCCCGGCCGCCATGGCCGCGGGATTGGCACGACG
                                                                                                                                                                                                                                                                                                                                                           GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seow KT,
                                                                                                                     SS
                                                                                                                                                                                                                             (first entry)
                        2000WO-US34263
                                                                                                                                                                                                                                                                                                                                                                                                                               BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97US-0861774
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                                                                                                                                                                                                                                                                                                                                                                                                                                 272 A; 361 C;
                                                                                                                                                                                                                                                                           cDNA;
                                                                                                                                                                                                                                                                                                                                                                                              25.1%;
92.5%;
                                                                                                                                                                                                      SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Waters B,
                                                                                                                                                                                                                                                                            2597
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                                                                                                                                                                                                                                                                                                                                                                                  Score 35.2; In Pred. No. 0.03 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for
                                                                                                                                                                                                                                                                            ВΡ
                                                                                                                                                                                                       375
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                                                                                                                                                                                                                                                                                                                                                                                                                                  319 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       recovering antibiotic biosynthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WH;
                                                                                                                                                                                                                                                                                                                                                                                                                                  270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                 .033;
                                                                                                                                                                                                                                                                                                                                                                                                           DВ
                                                                                                                                                                                                                                                                                                                                                                                                          20;
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                                                                                                                                                                                                                                                                                                                                       1137
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                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                     inflammation;
                                                                                                                                                                                                                                                                                                                                                                                     0;
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RESULT 8
AAI57799
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Best Local S
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09-JUL-2000;
19-JUL-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression. Activinyinhibin activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and assays for receptor activity, arthritis and inflammation, leukaemias and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang
                                                                                                                        peripheral nervous system; neuropathy; central nervous system; CNS; Alzheimer's; Parkinson's disease; Huntington's disease; haemostatic; amyotrophic lateral sclerosis; Shy-Drager Syndrome; chemotactic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            14-SEP-2000;
19-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-AUG-
                                                                                                          chemokinetic; thrombolytic; drug screening; arthritis; inflammation;
                                                                                                                                                                                              Human polynucleotide SEQ ID
                                                                                                                                                                                                                                                                                AAI57799 standard; cDNA; 3186 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C.N.S disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel nucleic acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29-NOV-2000;
                                                                                                                                                                 Human; nootropic; immunosuppressant; cytostatic; gene therapy; cancer;
                                                                                                                                                                                                                          22-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAM39016.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HYSE-) HYSEQ INC
            26-JUL-2001
                                       WO200153312-A1
                                                                 Homo sapiens
                                                                                              leukaemia; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invention relates to human nucleic acids (AAI57798-AAI61369)
                                                                                                                                                                                                                                                                                                                                                       2561 GCATGCTCCCGGCCGCCATGCCCGCGGGATTTTCCCCGGGTCGACGA 2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001-442253/47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           QA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΥT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The sequence data for this patent did not form part of the printed
                                                                                                                                                                                                                                                                                                                                                                                 11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -2000;
                                                                                                                                                                                                                                                                                                                                                                                                               1 Similarity
39; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Wang Z,
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 375; 10078pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2597
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2000US-0598042
2000US-0620312
2000US-0653450
2000US-0662191
2000US-0693036
2000US-0727344
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2,0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 733 A; 607
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Wehrman T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wehrman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Goodrich R,
                                                                                                                                                                                                                                                                                                                                                                                                                            24.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       polypeptides, useful for treating
system injuries -
                                                                                                                                                                                              NO 2
                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chen R, Ma Y, Xu C, Xue AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                            Score 34.8;
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C; 690 G; 567 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                             . 055;
                                                                                                                                                                                                                                                                                                                                                                                                                                        BB
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Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                         22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 2597;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ren F,
Zhang (
                                                                                                                                                                                                                                                                                                                                                                                   56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disorders
                                                                                                                                                                                                                                                                                                                                                                                                               0
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                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT 9
AAX76514
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Best Local Similarity
Matches 38; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-JUL-2000;
19-JUL-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in gene therapy. A composition containing a polypeptide or polynucleotide of the invention may be used to treat diseases of the peripheral nervous system, such as peripheral nervous injuries, peripheral neuropathy and localised neuropathies and central nervous system diseases, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager Syndrome. Other uses include the utilisation of the activities such as: Immune system suppression, activity, chemotactic/chemokinetic activity, heemostatic and thrombolytic activity, cancer diagnosis and therapy, drug screening, assays for receptor activity, arthritis and inflammation, leukaemias and
                                                    wNT-1 induced secreted protein; wISP-1; WISP-2; WISP-3; CTGF; tumour; connective tissue growth factor; cancer; melanoma; arteriosclerosis; leukaemia; lymphoid malignancy; haematopolesis-related disorder; tissue-growth disorder; skin disorder; desmoplasia; fibrotic lesion; kidney disorder; bone-related disorder; osteoporosis; trauma; burn; connective tissue disorder; catabolic state; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Note: The sequence data
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to human nucleic acids (AAI57798-AAI61369) and the encoded polypeptides (AAM38642-AAM42213) with nootropic, immunosuppressant and cytostatic activity. The polynucleotides are useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-SEP-2000;
19-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-DEC-2000;
                                                                                                                                                           WISP 5' cloning site region SEQ ID NO:51.
                                                                                                                                                                                          06-AUG-1999
                                                                                                                                                                                                                                                   AAX76514 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 3186 BP; 695 A; 1058 C; 894 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C.N.S disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                such as central nervous system
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel nucleic acids and polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB; AAM38643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-APR-2000;
                                         testicular-related disorder; angiogenesis; immunological disorder; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-442253/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QA,
                                                                                                                                                                                                                                                                                                                            20 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCCTTCATCCAC
                                                                                                                                                                                                                                                                                                                                                       11 GCATGCTCCCGGCCGCCATGGCCGGGGATTGTCATGAGGCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wang Z,
Zhou P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ ID NO 2; 10078pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Liu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0598042.
2000US-0620312.
2000US-0653450.
2000US-0662191.
2000US-0693036.
                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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2000US-0552317
                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wehrman T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Asundi V,
                                                                                                                                                                                                                                                   DNA;
                                                                                                                                                                                                                                                                                                                                                                                                   24.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goodrich R,
                                                                                                                                                                                                                                                   163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for this patent did not form part
                                                                                                                                                                                                                                                   ВΡ
                                                                                                                                                                                                                                                                                                                                                                                       0
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                                                                                                                                                                                                                                                                                                                                                                                                  Pred.
                                                                                                                                                                                                                                                                                                                                                                                                   Score 34.4;
Pred. No. 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xu C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            injuries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drmanac
                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ma Y,
Xue AJ,
anac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                539 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                     , 08;
                                                                                                                                                                                                                                                                                                                                                                                                                     DB
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Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                   22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tor treating
                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                                                                other;
                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                            63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ren F,
                                                                                                                                                                                                                                                                                                                                                                                                                     3186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         of the printed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disorders
                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wang
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Synthetic

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AAX55630
II AAX5
XX
AC AAX5
AC AAX5
AX 5 6-J
XX 6 7 C
XX 6 7 C
XX meli
KW Infl
XX infl
XX Synt
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disorders, skin disorders, desmoplasia, fibrotic lesions, kidney disorders, bone-related disorders such as osteoporosis, trauma such as burns, incisions, and other wounds, connective tissue disorders, catabolic states, testicular related disorders, and inflammatory, angiogenic and immunologic disorders including arteriosclerosis. The products can also be used for detection and diagnosis especially of individuals with neoplastic cell growth or proliferation. The products can be used in the production of transgenic or knock-out animals. Antibodies can be used to induce death in WISP-1, 2 or 3 overexpressing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     products can be used to treat arteriosclerosis. The products can also be used to treat other diseases e.g. benign and malignant tumours, leukaemia and lymphoid malignancies, neuronal, glial, astrocytal, hypothalamic and other glandular, macrophagal, epithelial, stromal, and blastocoelic disorders, haematopoiesis-related disorders, tissue-growth disorders, skin disorders, desmoplasia, fibrotic lesions, kidney
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and wise-3 have nomology to connective tissue growth factor (CTGF). Products from the present invention can be used to treat WISD-related disorders such as breast, ovarian, and colon cancer or melanoma. The products can be used to treat arterioral models.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes Wnt-1 induced WISP-1, 2 and 3. The novel WISP polypeptides, and WISP-3 have homology to connective tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Botstein
Lawrence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9921998-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated Wnt-1 induced secreted polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-FEB-1998;
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29-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-337420/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GETH ) GENENTECH INC
                                                                                                                                                                                                                          Human; murine; clone 65; clone 320; Wnt; arteriosclerosis; malignancy;
melanoma; cancer; breast; ovary; colon; tumor; cardiac; renal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 163 BP; 35 A; 45 C;
                               06-MAY-1999
                                                                                     W09921999-A2
                                                                                                                                     Synthetic
                                                                                                                                                                                                                       melanoma; cancer;
                                                                                                                                                                                                                                                                                                                                                          26-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                               AAX55630,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAX55630 standard;
                                                                                                                                                                                              inflammation;
                                                                                                                                                                                                                                                                                                      cloning
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG
                                                                                                                                                                                                                                                                                                         site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cohen RL,
Levine ÅJ,
                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0081695.
97US-0063704.
98US-0073612.
                                                                                                                                                                                        angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98WO-US22991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             203; 284pp; English
                                                                                                                                                                                                                                                                                                      region of plasmid pGEM-T
                                                                                                                                                                                                                    breast;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Goddard A,
Pennica D,
                                                                                                                                                                                                                    ovary; colon;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΒP
                                                                                                                                                                                              immunological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 34.2; DB
Pred. No. 0.041;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          46 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gurney AL,
Roy MA, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 secreted polypeptides, designated WISP-1, WISP-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hillan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WISP-1, 2 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WI;
                                                                                                                                                                                                      SS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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ABN84401/c
ID ABN844
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PAX PF F PA
                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to human and murine cDNA clones 65 and 320, clone coding polypeptides that are induced by Wnt. Clone 65 and 320 clone services and their antagonists, are used to treat disorders associated with these polypeptides, e.g. arteriosclerosis, malignancies concludes the breast, ovary and colon), but called benign tumors, cardiac, renal, catabolic or many other types of concludes inflammation, angiogenesis and immunological disorders, more concluded control of the breast, ovary and colon), but called the concludes are used as the capacitic antagonists and disorders, more constructed that can be concluded as the capacitic antagonists and as diagnostic cards are used as hybridization probes or primers (too detect related sequences); for chromosome and gene mapping; to generate antisense conceptions are used as hybridization probes or primers (to detect related transgenic or 'knockout' animals (for development of, and screening for, cardiagenic or 'knockout' animals (for development of, and screening for, antibodies; as immunoassay reagents and in drug screens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-FEB-1998;
29-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1999-326705/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     29-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Examples; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Levine AJ,
                                                                                                                                                                                                                                                                                         Human Kv4.3 potassium channel (short form) cDNA.
                                                                                                                                                                                                                                                                                                                    01-OCT-2002
                                                                                                                                                                                                                                      gene;
                                                                                                                                                                                                                                                                                                                                                 ABN84401;
                                                                                                                                                                                                                                                                                                                                                                          ABN84401 standard; cDNA; 2064 BP
                           23-OCT-1998;
                                                       23-OCT-1998;
                                                                                 28-MAY-2002
                                                                                                              US6395477-B1
                                                                                                                                                                                                                                                   heart disease;
                                                                                                                                                                                                                                                               Kv4.3; potassium channel;
                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and murine genes
                                                                                                                                                                                                                                                                                                                                                                                                                                               41 GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 Similarity 92... 36; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pennica
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BP;
                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9; 114pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0073612
97US-0063704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98WO-US22992
                                                                                                                                                                                                                                                 nootropic;
                           98US-0178109
                                                       98US-0178109
                                                                                                                                                                   Location/Qualifiers 73..1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35
                                                                                                                                                   /*tag=
                                                                                                                                      /product= "Kv4.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; 45 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24.4%;
92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               induced by Wnt and derived polypeptides
                                                                                                                                                                                                                                                   neuroprotective; cardiant; gene therapy;
                                                                                                                                                                                                                                                                 human; Alzheimer's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score
Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           46 G; 37 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34.2; DB 2
No. 0.041;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            49
                                                                                                                                                                                                                                                                                                                                                                                                                                                  79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     163;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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(AMHP) AMERICAN HOME PROD CORP

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RESULT 12
ABN84400/c
DE CREATE PRESENTATION OF CREATE PRESENTATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is that of cDNA encoding the short isoform of novel human potassium channel Kv4.3. 2 Isoforms of human Kv4.3 have been identified. One form is full-length (hKv4.3 long) while the second form has a deletion of 19 amino acids in the carboxy domain after the predicted sixth transmembrane domain (hKv4.3 short). Human heart primarily expresses hKv4.3 long, whereas human brain contains both forms. To obtain the present hKv4.3 short cDNA, PCR amplification was performed using primers that flanked the 57 bp insert in hKv4.3 long. The invention provides Kv4.3 polypeptides, and methods for producing these polynucleotides, and methods for producing these polynucleotides. The Kv4.3 polypeptides and polynucleotides are useful in the diagnosis, treatment and screening of human diseases relating to an excess or deficiency of hKv4.3 activity, including Alzheimer's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated polynucleotide encoding human Kv4.3 potassium channel polypeptide, useful as probe in a diagnostic method for detecting nucleic acid encoding human Kv4.3, and for treating Alzheimer's and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-2002 (first entry)
WPI; 2002-556093/59
                                                         Cockett MI, Dilks DW,
                                                                                                               (AMHP ) AMERICAN HOME PROD CORP
                                                                                                                                                                                                                                                                                                   28-MAY-2002
                                                                                                                                                                                                                                                                                                                                                         US6395477-B1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Kv4.3 potassium channel (long form) cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABN84400 standard; cDNA; 2121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 2064 BP; 446 A; 678 C; 545 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 7; Column 21-22; 19pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-556093/59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cockett MI,
                                                                                                                                                                               23-OCT-1998;
                                                                                                                                                                                                                                      23-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         heart disease; nootropic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kv4.3; potassium channel;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disease and heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              heart diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2015 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGACA 1974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCA 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 Similarity
37; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dilks
                                                                                                                                                                            98US-0178109
                                                                                                                                                                                                                                      98US-0178109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers 73..2040
                                                                                                                                                                                                                                                                                                                                                                                                               /*tag= a
/product= "Kv4.3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               24.3%;
88.1%;
                                                   Ling HC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ling HC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      human; Alzheimer's disease; neuroprotective; cardiant; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sokol
                                                         Sokol PT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0.098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     395 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 24; Length 2064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΡŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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RESULT 13
AAX83364
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Best Local S
Matches 37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    deletion of 19 amino acids in the carboxy domain after the predicted sixth transmembrane domain (hKv4.3 short). Human heart primarily expresses hKv4.3 long, whereas human brain contains both forms. The invention provides Kv4.3 polypeptides, polynucleotides, and methods for producing these polynucleotides. The Kv4.3 polypeptides and polynucleotides are useful in the diagnosis, treatment and screening of human diseases relating to an excess or deficiency of hKv4.3 activity, including Alzheimer's disease and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oligonucleotides based on the published rat sequence were used to screen a whole heart CDNA library. A 511 bp fragment was obtained and used as a probe to rescreen the library. The resulting clones lacked the extreme 5′ and 3′ coding regions, and 5′ and 3′ RACE was therefore used to amplify these sequences from a human brainstem cDNA library. 2 Isoforms of human KV4.3 were identified one form is full-length (hKV4.3 long) while the second form has a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New isolated polynucleotide encoding human Kv4.3 potassium channel polypeptide, useful as probe in a diagnostic method for detecting nucleic acid encoding human Kv4.3, and for treating Alzheimer's and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2121 BP; 457 A; 694 C; 557 G; 413 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present sequence is that of cDNA encoding the long isoform of novel human potassium channel Kv4.3. To obtain the cDNA,
                                                                                         Frudakis TN,
                                                                                                                                                                                                                                                                                                                                                                                                                          Breast cancer tumour specific clone #118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-AUG-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 5; Column 15-18; 19pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   heart diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P-PSDB; ABB79584
diagnosis and treatment of breast cancer
               Breast cancer-related DNA from retrovirus antigen (s) - useful for
                                                       WPI; 1997-372865/34
                                                                                                                               (CORI-) CORIXA CORP.
                                                                                                                                                                 20-AUG-1996;
11-JAN-1996;
                                                                                                                                                                                                                       10-JAN-1997;
                                                                                                                                                                                                                                                            17-JUL-1997
                                                                                                                                                                                                                                                                                                W09725426-A2
                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                      human endogenous
                                                                                                                                                                                                                                                                                                                                                                                        Breast cancer; tumour; gene expression; genome; diagnosis; mammal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAX83364 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          heart disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGACA 2031
2072 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGACA 2031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity
37; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                         Reed SG,
                                                                                                                                                                 96US-0585392
                                                                                                                                                                                     96US-0700014
                                                                                                                                                                                                                       97WO-US00485
                                                                                                                                                                                                                                                                                                                                                                        retrovirus; vaccine; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24.3%;
88.1%;
                                                                                         Smith JM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 34;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             βP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0.099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 24; Length 2121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
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Claim 1; Page 150-151; 221pp; English

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                Query Match
Best Local
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   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequences AAX83201-X83285 and AAX83331-X83415 represent novel breast cancer tumour specific clones which are expressed from a genomic region containing a human endogenous retrovirus (AAX8330). Detection of the clone sequences allows determination of the presence of breast cancer in a humanal. Progression of breast cancer can be monitored by detection the lawel of clone services for the lawel of clone sequences.
                                                                                                 AAV68800 to AAV68998 represent nucleotide sequences which encode human breast tumour specific polypeptides. Detection or measurement of human breast tumour specific polypeptides and nucleotide sequences, or the corresponding RNA in a sample, is used for diagnosis and monitoring of breast cancer. Human breast tumour specific polypeptides and nucleotide sequences, and the vectors containing the DNAs, are also useful in vaccines for inhibiting development (for prevention or therapy) of breast cancer. The polypeptides may also be used to raise monoclonal antibodies, used as immunoassay reagents.
                                                                                                                                                                                                                                                                                                         New DNA sequences isolated from endogenous human retroviral element - and related vectors, transformed cells, proteins and antibodies, useful for diagnosis, treatment and prevention of breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 484 BP; 101 A; 138 C; 126 G; 118 T; 1 other;
                                                                     Sequence 484
                                                                                                                                                                                                                                                                              Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                Frudakis TN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-DEC-1997;
09-APR-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    09-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09845328-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA molecule encoding a breast tumour specific polypeptide #96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV68904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAV68904 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-OCT-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ing the level of clone expression. Polypeptides encoded by the can be used in vaccines to inhibit or prevent breast cancer.
                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG
                                                                                                                                                                                                                                                                          Page 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         epitope;
   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                    BP; 101 A; 138 C; 126 G; 118 T; 1 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancer; breast tumour tissue; diagnosis;
ope; endogenous; retroviral element; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97US-0991789.
97US-0838762.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98WO-US06939.
                                                                                                                                                                                                                                                                          173pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA;
              24.1%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24.1%;
75.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               484
                                                                                                                                                                                                                                                                                                                                                                                                                Smith
 0,
Score 33.8; DB Pred. No. 0.077; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 33.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.077;
                                 DB 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                  Length 484;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484;
 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
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 Gaps
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11

GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG

64

Search completed: May 25,

2003,

19:02:42

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: 71.3404 secs

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RESULT 15
AAC80887
                                                                                                                                   PF PR PR PR PR PR PR PR PR XX
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 В
                              Qу
                                                                   Matches
                                                                                               Query Match
                                                                                   Best Local
                                                                                                                                                                                                                          The present sequence is given in a specification relating to compositions and methods for the treatment and diagnosis of breast cancer. Nucleotide sequences that are preferentially expressed in breast tumour tissue, and the polypeptides encoded by such nucleotide sequences, are used in compositions and vaccines to inhibit the development of cancer, especially breast cancer. The progression of a cancer may be monitored by carrying out detection of tumour-specific antigens at subsequent time points and comparing the results from the different time points. CD4+ and/or CD8+ T-CD1s isolated from the cancer patient may be treated with temporary receiffs columnicated from the cancer patient may be treated.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAC80887
                                                                                                                                                                                 with tumour-specific polypeptides, polynucleotides encoding the polypeptides or antigen presenting cells expressing the polypeptides cells are then administered to the patient to inhibit development of
                                                                                                                                                                                                                                                                                                                                                                                                                             An isolated polypeptide comprising an immunogenic portion of a breast tumor protein used for inhibiting the development of cancer, especially breast cancer, and monitoring cancer progression in a patient -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAC80887
                                                                                                                                   Sequence 484 BP; 101 A; 138
                                                                                                                                                                                                                                                                                                                                                                                               Claim 4; Page 135; 187pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Frudakis TN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-APR-1999;
28-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-APR-2000; 2000WC-US09312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200061753-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     breast cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human breast tumour-specific
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2000-628403/60.
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 25
                               11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                breast tumour-specific antigen;
cancer; B18Ag1; B11Ag1; B15Ag1;
                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; cDNA;
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GCATGNTCCCGGCCGCGATGGCCGCGGGATTCGGGTGATGCCTCCTCAGGCTTG
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9905-0289198
                                                                                 24.18;
75.98;
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                                                                                 Score 33.8;
Pred No 0
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                                                                   Mismatches
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                                                                                   DB 21;
.077;
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Sequence Sequence Sequence

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Title:
Perfect score:
Sequence:
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Maximum DB seq length: 2000000000
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Maximum Match 100%
Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scoring table:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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                                                                                                                                                                                                                                                                          34
33.8
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Gapop 10.0 , Gapext 1.0
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    Issued_Patents_NA: *
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
/cgn2_6/ptodata/1/ina/5B_COMB.seq:*
/cgn2_6/ptodata/1/ina/6A_COMB.seq:*
/cgn2_6/ptodata/1/ina/6B_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/backfiles1.seq:*
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2121
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175, App
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179, Appl
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51, Appli
3, Appli
1, Appli
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APPLICANT: Ho, Yap
APPLICANT: Tong, Seow
APPLICANT: Tong, Seow
TITLE OF INVENTION: METHOD FOR ISOLATION OF BIOSYNTHESIS GEN
TITLE OF INVENTION: BIOACTIVE MOLECULES
FILE REFERENCE: 993-006
FILE REFERENCE: 993-006
CURRENT APPLICATION NUMBER: US/08/861,774E
CURRENT FILING DATE: 1997-05-22
NUMBER OF SEQ ID NOS: 94
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 83
LENGTH: 1222
TYPE: DNA
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US-08-861-774E-83/c
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                                                                                                                                                                                                                                                                                                                                                                                                             : OTHER INFORMATION: Description of Artificial Sequence: Clone US-08-861-774E-83
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                                                                                                                                                                                                Sequence 51, Application US/09182145B Patent No. 6387657
                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
 APPLICANT: Botstein, David A.
APPLICANT: Cohen, Robert
APPLICANT: Goddard, Audrey
APPLICANT: Goddard, Audrey
APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth J.
APPLICANT: Levine, Arnold J.
APPLICANT: Levine, Arnold J.
APPLICANT: Pennica, Diane
APPLICANT: Roy, Margaret Ann
APPLICANT: Mood, William I.
TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME
FILE REFERENCE: P1176R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Waters, Barbara APPLICANT: Miao, Vivian
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        444443335333328
4444433355433109
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nes 37; Conserv
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29
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92.5%;
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US-09-598-326-186
US-09-598-326-186
US-08-986-6598-15
US-08-986-6598-15
US-08-757-653-49
US-08-757-653-32
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No. 0
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Length 1222; Indels

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10 11 12 13 13 14 15 16 17 17 18 18 19 20 22 23 24 24 27 27

Database

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; LENGTH: 2064
; TYPE: DNA
; ORGANISM: human
US-09-178-109-3
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US-09-178-109-3/c
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US-09-182-145-51
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US-09-178-109-1/c
                                                                                                                                                                                                                                                                                       Вb
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APPLICANT: Cockett, Mark I.
APPLICANT: bilks, Daniel W.
APPLICANT: Chang Ling, Huai-Ping
APPLICANT: Sokol, Patricia T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 156
SEQ ID NO 51
LENGTH: 163
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Best Local 9
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                                                                                                                                                    GENERAL INFORMATION:
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CURRENT FILING DATE: 1998-10-29
EARLIER APPLICATION NUMBER: US 60/063,704
EARLIER FILING DATE: 1997-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Human Potassium Channel Polynucleotides and TITLE OF INVENTION: Polypeptides and Uses Therefor FILE REFERENCE: ahp-98089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EARLIER APPLICATION NUMBER: US 60/081,695 EARLIER FILING DATE: 1998-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EARLIER APPLICATION NUMBER: US 60/073,612 EARLIER FILING DATE: 1998-02-04
                 APPLICANT: Cockett, Mark I.

APPLICANT: Dilks, Daniel W.

APPLICANT: Chang Ling, Huai-Ping

APPLICANT: Sokol, Patricia T.

TITLE OF INVENTION: Human Potassium Channel Polynucleotides and

TITLE OF INVENTION: Polypeptides and Uses Therefor

FILE REFERENCE: ahp-98089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/178,109
CURRENT FILING DATE: 1998-10-23
NUMBER OF SEQ ID NOS: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Artificial sequence
CURRENT APPLICATION NUMBER: US/09/178,109
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92.3%;
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88.1%;
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Pred. No. 0.0038;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                  Score 34; DB 4;
Pred. No. 0.009;
                                                                                                                                                                                                                                                                                                                                                                  Mismatches
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; TYPE: DNA
; ORGANISM: human
US-09-178-109-1
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Sequence 175, Application US/08991789A
Patent No. 6225054
GENERAL INFORMATION:
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                US-09-062-451-175
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Best Local Similarity
Matches 37; Conserv
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Sequence 175,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 1998-10-23
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                                                                                                                                                                                                                                                                                                                              TELEFAX: (206) 682-6031 INFORMATION FOR SEQ ID NO: 175: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 210121.419C3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 98104-7092
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2072 GCATGCTCCCGGCCGCCATGGCCGGGGATTTTTACAAGACA 2031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 292
                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 175:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCA 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2121
                                                                                    11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Potter, Jane E. R. REGISTRATION NUMBER: 33,332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US/08/991,789A FILING DATE: 11-Dec-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE: Seed IP Law Group
STREET: 701 Fifth Avenue, Suite 6300
Application US/09062451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Smith, John M. Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24.3%;
                                                                                                                                                                                                                                                                linear
                                                                                                                                                                        24.1%;
75.9%;
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Pred. No. 0.0091;
                                                                                                                                                         Pred. No. 0.0
0; Mismatches
                                                                                                                                                                                          Score 33.8;
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                                                                                                                                                  8;
. 0.0071;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Version #1.30
                                                                                                                                                                                          Length 484;
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US-09-598-326-175
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                                                                                                                                                                                                                                                                                                                                                                            Sequence 175, Application US/09598326 Patent No. 6423496 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 6344550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 484 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: 1BM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
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REGISTRATION NUMBER: 31,392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 04-AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE:
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              COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                       APPLICAM:...Smith, John M.
Smith, John M.
Reed, Steven G.
Reed, Steven G.
Reed, Steven G.
Readment AND METHODS FOR THE
TREATMENT AND DIAGNOSIS OF BREAST CANCER
TREATMENT AND DIAGNOSIS OF BREAST CANCER
TO SECURE PLACES: 247
                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed Intellectual Property Law Group PLLC STREET: 701 Fifth Avenue, Suite 6300
CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nucleic acid
                                                                                                                                                              STATE: Washington
                                                                                                                              ZIP: 98104-7092
                                                                                                                                                    COUNTRY:
APPLICATION NUMBER: US/09/598,326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
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75.9%;
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                                                                                                                                              TELEFAX: (415) 576-03
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: (206) 6
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                       FILING DATE: 09-JAN-1998
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/781,734
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/004,838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Procedures and Materials for TITLE OF INVENTION: Conferring Pest Resistance in Plants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Michelmore, RI
APPLICANT: Shen, Kathy
APPLICANT: Meyers, Blake
                                                                                                                          SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
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ADDRESSEE: Townsend and Townsend and Crew LLP
                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: Two Line CITY: San Francisco
                                                                  TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                     NAME: Einhorn, Gregory P
REGISTRATION NUMBER: 38,
                                                                                                                                                                                                                       REFERENCE/DOCKET NUMBER: 023070-078810US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE:
NAME/KEY:
                                                                                                                                                                                TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM:
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                                                                                                        LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO: 175:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94111-3834
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Potter, Jane E.R. REGISTRATION NUMBER: 33,332
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE/DOCKET NUMBER: 210121.419D1
                                                                                                      5506 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Two Embarcadero Center, Eighth Floor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              E: Floppy disk
IBM PC compatible
                                                    linear
                                                                                                                                                              (415) 576-0200
415) 576-0300
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75.9%;
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                                                                                                                                                                                                                                       38,440
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0.0071;
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; LOCATION: 1..5506
; OTHER INFORMATION:
US-09-004-838-93
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                                                                                                           GENERAL INFORMATION:
APPLICANT: Landry, Donald
TITLE OF INVENTION: ANTI-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vequence 52, Application US/09182145B Patent No. 6387657
                                                                                                                                                              sequence 97, Application US/09214095D
Patent No. 6280987
                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 6387657
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Best Local
               SOFTWARE:
SEQ ID NO 97
                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                             Best
                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 156
SEQ ID NO 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/182,145B CURRENT FILING DATE: 1998-10-29 EARLIER APPLICATION NUMBER: US 60/063,704 EARLIER FILING DATE: 1997-10-29 EARLIER APPLICATION NUMBER: US 60/073,612 EARLIER FILING DATE: 1998-02-04 EARLIER FILING DATE: 1998-02-04 EARLIER FILING DATE: 1998-04-14
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                                             FILE REFERENCE: 51400-A-PCT-US
CURRENT APPLICATION NUMBER: US/09/214,095D
CURRENT FILING DATE: 1999-07-19
NUMBER OF SEQ ID NOS: 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME FILE REFERENCE: P1176R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: misc_feature
LOCATION: 1-163
OTHER INFORMATION: Sequence is synthesized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Artificial sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
LENGTH: 419
                                                                                                                                                                                                                                                                                                                                            Local
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                                                                                                                                                                                                                                                               123 GCATGCTCCCGGCCGCCATGGCCGCGGGATAATCACTAG 85
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                                                                                                                                                                                                                                                                               11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34;
                                                                                                                                                                                                                                                                                                                          l Similarity
35; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gurney, Austin L.
Hillan, Kenneth J.
Lawrence, David A.
Levine, Arnold J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Roy, Margaret Ann
Wood, William I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pennica, Diane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goddard,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cohen, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Botstein, David A.
                               PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Audrey
                                                                                                               ANTI-COCAINE CATALYTIC ANTIBODY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23.98; 97.18;
                                                                                                                                                                                                                                                                                                                                          23.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note= "RG2D"
                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                          Score 32.6; DB Pred. No. 0.014; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 33.4; DB Pred. No. 0.019; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 4; Length 5506;
                                                                                                                                                                                                                                                                                                                                                        DB 4; Length 163;
                                                                                                                                                                                                                                                                                                                            4;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Pa
SEQ ID NO 111
LENGTH: 420
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA ORGANISM: Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
les 31; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
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                                                                                                                                                                                                                                                                                                                                                          Smith,
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US-08-991-789A-185
Sequence 185, Application US/08991789A; Patent No. 625054
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT FILING DATE: 1999-07-19

NUMBER OF SEQ ID NOS: 121

SOFTWARE: PATENDON: ANTI-COCAINE CATALYTIC ANTIBODY

LUCATION NUMBER: US/09/214,095D

CURRENT FILING DATE: 1999-07-19

SOFTWARE: PATENDON: 121

'EO TTO ''
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/08/991,789A
FILING DATE: 11-Dec-1997
CLASSIFICATION: <Unknown>
                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 48
                                                                                                                                                                                                                                                                   CITY: Seattle
STATE: Washington
NAME: Potter, Jane E. R.
                                                                                                                                                                                                                                COUNTRY: USA
ZIP: 98104-7092
                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Seed IP Law Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.1%; Score 31; DB 4; Length 420; llarity 100.0%; Pred. No. 0.057; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                           701 Fifth Avenue, Suite 6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22.1%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        John M
                                                                                                                                                                                                                                                                                                                                                                                          TREATMENT AND DIAGNOSIS OF BREAST CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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; SEQUENCE DESCRIPTION: SEQ ID NO: 185: US-08-991-789A-185
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                              QΥ
                                                                                                                                          US-09-062-451-185
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No. 6344550
GENERAL INFORMATION:
                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 185, Application US/09062451 Patent No. 6344550
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                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                      TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: :
SEQUENCE CHARACTERISTICS:
LENGTH: 597 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 185:
SEQUENCE CHARACTERISTICS:
LENGTH: 597 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: MAK1, DAVID J.
REGISTRATION NUMBER: 31,392
REFERENCE/DOCKET NUMBER: 211
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: TREATMENT AND DIAGNOSIS OF BREAST CANCER NUMBER OF SEQUENCES: 297
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STREET: ....
Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS:
                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/062,451
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                                                                                                                                                          TOPOLOGY:
                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                      Local Similarity
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 12 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 42
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                                11 GCATGCTCCCGGCCGCCATGGCCGCGCGATT 41
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REFERENCE/DOCKET NUMBER: 210121.419C3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6300 Columbia Center, 701 Fifth Avenue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Frudakis, Tony
Smith, John M.
Reed, Steven G.
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                                                                       Conservative
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                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEED and BERRY LLP
                                                                                                                                                                                                                                                                                   (206) 622-4900
                                                                                                                                                                                                                                                                                                                                                                                                        04-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22.1%; Scott No. .
y 100.0%; Pred. No. .
y ive 0; Mismatches
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                                                                                  22.1%; Score 31; DB 4; Length 597; 100.0%; Pred. No. 0.073;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tony N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 682-6031
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 Mismatches

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                                                                     0;
                                                                 Gaps
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US-08-991-789A-167
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                                                                                                                                                                                                                                                                                                                                                  Sequence 167, Application US/08991789A Patent No. 6225054
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 210121.419D1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (206) 622-4900
TELEPHONE: (206) 682-6031
INFORMATION FOR SEQ ID MO: 188:
SEQUENCE CHARACTERLSTICS:
LENGTH: 597 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 22.1%; Score 31; DB 4; Length 597; Local Similarity 100.0%; Pred. No. 0.073; Les 31; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: POLLER, Jane E.R.
REGISTRATION NUMBER: 33,332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES: 24 CORRESPONDENCE ADDRESS:
                         ZIP: 98104-7092
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                   Smith, John M.

Reed, Steven G.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
                                                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: Seed IP Law Group
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE DESCRIPTION: SEQ ID NO: 185:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                               NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/09/598,326 FILING DATE: 20-Jun-2000 CLASSIFICATION: <Unknown>
                                                                STATE: Washington COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CITY: Seattle
STATE: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: Seed Intellectual Property Law Group PLLC STREET: 701 Fifth Avenue, Suite 6300
                                                                                                                   CITY: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 98104-7092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
MEDIUM TYPE: Floppy disk
                                                                                                                                          STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Reed,
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                                                                                                                                     701 Fifth Avenue, Suite 6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Steven G.
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                                                                                                                                                                                                                                   TREATMENT AND DIAGNOSIS OF BREAST CANCER
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/991,789A
FILING DATE: 11-Dec-1997
CLASSIFICATION NUMBER: US/08/991,789A
FILING DATE: 11-Dec-1997
CLASSIFICATION NUMBER: US/08/991,789A
APPLICATION NUMBER: 2007
CLASSIFICATION NUMBER: 210121.419C3
APPLICATION NUMBER: 233,332
APPLICATION NUMBER: 210121.419C3
TELEPHONE: Q06) 682-6031
TELEPHONE: (206) 682-6031
INFORMATION POR SEQ ID NO: 167:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
SEQUENCE CHARACTERISTICS:
TYPE: NUMBER: 210121.419C3
TYPE: NO-10-14C acid
STRANDEDNESS: single
TYPE: NO-10-14C acid
STRANDEDNESS: Single
TOPOLOGY: Linear
SEQUENCE DESCRIPTION: SEO ID NO: 167:
US-08-991-789A-167
Query Match
Best Local Similarity 94.1%: Prec. No. 0.082:
Matches 32: Conservative 0: Mismatches 2: Indels 0: Gaps
Ouery Match
Best Local Similarity 94.1%: Prec. No. 0.082:
Matches 32: Conservative 0: Mismatches 0: Gaps
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OM nucleic - nucleic search, using sw model
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
                                                                                                                                                                                                                                                                                                                                                                                        Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-743-533-14
140
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11:
12:
13:
14:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compug
                                                                                                                                      /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
                                                                                                                                                                                                                                         /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
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/cgn2_6/ptodata/2/pubpna/US09_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US60_PUBCOMB.seq:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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3 <u>1</u>	ω L	31	31	31	31.4	31.4	31.4	32.6	33.2	33.8	33.8	33.8	34	34	34.2	34.4	35.2	35.4	Score
22.1	22.1	22.1	22.1	22.1	22.4	22.4	22.4	23.3	23.7	24.1	24.1	24.1	24.3	24.3	24.4	24.6	25.1	25.3	Query
420	419	215	215	215	831	713	669	163	711	484	484	484	2121	2064	163	3186	1222	1630	Query Match Length
ع	9	12	10	10	9	10	9	9	10	10	10	9	12	12	9	9	10	9	DB
US-09-940-727B-111	US-09-940-727B-97	US-10-010-742-250	US-09-910-689-250	US-09-778-320-250	US-09-894-916-6	US-09-772-134B-82	US-10-043-875-841	US-10-112-267-52	US-09-772-134B-80	US-09-429-755-175	us-09-810-936-175	US-09-924-400-175	US-10-062-879-1	US-10-062-879-3	US-10-112-267-51	US-10-098-841-2	US-09-924-256A-83	US-10-098-841-1	ID
Sequence 111, App	Sequence 97, Appl	Sequence 250, App	Sequence 250, App	Sequence 250, App	Sequence 6, Appli	Sequence 82, Appl	Sequence 841, App	Sequence 52, Appl	Sequence 80, Appl	Sequence 175, App	S.	U		Sequence 3, Appli	Sequence 51, Appl	Sequence 2, Appli	Sequence 83, Appl	Sequence 1, Appli	Description

20
22.1 597 10 22.1 597 10 22.1 597 11 22.1 1680 9 22.1 1766 9 22.1 2714 10 22.0 500 10 22.0 500 10 22.0 500 10 22.7 488 10 21.7 488 11 21.7 507 10 21.7 507 10 21.7 507 10 21.4 17458 9 21.4 17458 9 21.4 17458 9 21.4 17681 9 21.4 17681 9 21.4 17681 9 21.4 17682 9 21.4 18692 9 21.3 5829 9 21.3 5829 9
597 10 597 11 597 11 680 9 1766 9 2714 10 500 10 500 10 500 10 488 10 488 11 488 10 507 11 507 11 507 11 707 9 17458 9 17458 9 17458 9 17458 9 17458 9 17862 9 5829 9 5829 9
9 US-09-224-407-185 10 US-09-429-755-185 10 US-09-429-755-185 10 US-09-429-755-185 9 US-09-298-5238-73 10 US-09-298-5238-73 10 US-09-294-400-167 10 US-09-429-755-167 10 US-09-429-755-180 10 US-09-429-755-180 10 US-09-429-755-180 10 US-09-429-755-182 10 US-09-429-755-182 10 US-09-429-755-182 9 US-10-055-001A-25 9 US-10-055-001A-25 9 US-10-055-001A-25 9 US-10-055-001A-23 9 US-10-055-001A-23 9 US-10-055-001A-23 9 US-10-055-001A-23 9 US-10-055-001A-23 9 US-10-055-001A-23 9 US-10-055-001A-33 9 US-10-055-001A-33 9 US-10-055-001A-33 9 US-10-055-001A-33
US-09-924-400-185 US-09-921-936-185 US-09-298-523B-73 US-09-298-523B-73 US-09-298-523B-73 US-09-298-523B-74 US-09-298-523B-74 US-09-298-400-167 US-09-24-400-180 US-09-24-400-180 US-09-24-400-180 US-09-24-400-182 US-09-24-400-182 US-09-24-755-182 US-09-24-700-182 US-09-24-700-182 US-09-24-700-182 US-09-182-755-182 US-09-182-755-182 US-09-182-755-182 US-09-182-755-182 US-10-055-001A-25 US-10-055-001A-25 US-10-055-001A-23

ALIGNMENTS

RESULT 1

US-10-098-841-1
; Sequence 1, Application US/10098841
; Publication No. US20020197679A1 ; NAME/KEY: CDS ; LOCATION: (261)..(1052) US-10-098-841-1 PRIOR FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 331
SOFTWARE: pt_fL_genes Version 1.0
SEQ ID NO 1 GENERAL INFORMATION: APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20020197679A1el Nucleic Acids and
TITLE OF INVENTION: No. US20020197679A1el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784CIP2
CUURRENT APPLICATION NUMBER: US/10/098,841
CUURRENT FILING DATE: 2002-03-13
PRIOR APPLICATION NUMBER: 09/598,042
PRIOR FILING DATE: 2000-6-20
PRIOR FILING DATE: 2000-6-20
PRIOR FILING DATE: 2000-6-20 APPLICANT: APPLICANT: APPLICANT: APPLICANT: APPLICANT: Tang, Y. Tom APPLICANT: Liu, Chenghua APPLICANT: Asundi, Vinod LENGTH: 16 TYPE: DNA APPLICANT: APPLICANT APPLICANT: PRIOR APPLICATION NUMBER: 09/552,317 APPLICANT APPLICANT: APPLICANT: ORGANISM: Homo sapiens FEATURE: 1630 Wehrman, Tom Zhang, Jie Qian, Xiaohong B. Ren, Feiyan Chen, Rui-hong Wang, Jian-Rui Zhao, Qing A. Wang, Dunrui Wang, Zhiwei Ma, Yunging Xu, Chongjun Zhou, Ping

Length 3186;

Indels

0;

Gaps

0,

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US-09-924-256A-83/c; Sequence 83, Application US/09924256A; Patent No. US20020127659A1
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Best Local S
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LENGTH: 1222
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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APPLICANT:
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APPLICANT:
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TITLE OF INVENTION: METHOD FOR ISOLATION OF BIOSYNTHESIS GENES FOR
TITLE OF INVENTION: BIOACTIVE MOLECULES
FILE REFERENCE: 9993-006
CURRENT APPLICATION NUMBER: US/09/924,256A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: 08/861,774
PRIOR FILING DATE: 2001-04-13
NUMBER OF SEQ ID NOS: 94
COUNTABER OF SEQ ID NOS: 94
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20020197679Alel Nucleic Acids and
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784CIP2
CURRENT APPLICATION NUMBER: US/10/098,841
CURRENT FILING DATE: 2002-03-13
PRIOR APPLICATION NUMBER: 09/598,042
PRIOR FILING DATE: 2000-06-20
                                                                                                                                                                                                                                                                                                                                     APPLICANT: APPLICANT:
                                                                                                                                                                                                             APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Tang,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
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                                                                                                                                                                                                                                        APPLICANT:
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                                                                                                                                                                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11 GCATGCTCCCGGCCGCCATGGCCGGGGATTGTCATGAGG
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                                                                                                                                                                                                     Wehrman, Tom
Zhang, Jie
Qian, Xiaohong B.
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Chen, Rui-hong
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79.2%;
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92.5%;
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Pred. No. 0.
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RESULT 5
US-10-062-879-3/c
                                                                                                        Дb
                                                                                                                                                                                                                                                                                                          ; OTHER INFORMATION: Sequence is synthesized US-10-112-267-51
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/182,1451
PRIOR FILING DATE: EARLIER FILING DATE: 198-10-29
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/063,704
PRIOR FILING DATE: EARLIER FILING DATE: 1997-10-29
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/073,612
PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-04
PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-14
NUMBER OF SEO ID NOS: 156

FENCEN 162

FEN
                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 36; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Botstein, APPLICANT: Cohen, R APPLICANT: Goddard,
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PRIOR TILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/112,267
CURRENT FILING DATE: 2002-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME FILE REFERENCE: P1176R2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc_feature LOCATION: 1-163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 163
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
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Local Similarity 86.4%;
es 38; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INFORMATION:
                                                                                                                                11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAG 49
                                                                                                  41
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                                                                                                     GCATGCTCCCGGCCGCCATGGCCGCGGGATTATCACTAG 79
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Wood, William I.
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Hillan, Kenneth J.
Lawrence, David A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application US/10112267
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cohen, Robert
                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                24.4%; 92.3%;
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                                                                                                                                                                                                                                Score 34.2; DB 9
Pred. No. 0.0063;
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GENERAL INFORMATION:

ce 3, Application US/10062879 No. US20020127649A1

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                                                                      GENERAL INFORMATION:
                                                                                     Sequence 175, Application US/09924400 Patent No. US20020165371A1
                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 1
 APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Human Potassium Channel Polynucleotides and TITLE OF INVENTION: Polypeptides and Uses Therefor FILE REFERENCE: ahp-98089
CURRENT APPLICATION NUMBER: US/10/062,879
CURRENT FILING DATE: 2002-01-31
PRIOR APPLICATION NUMBER: US/09/178,109
PRIOR FILING DATE: 1998-10-23
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                                                  APPLICANT: Frudakis, Tony N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Cockett, Mark I.
APPLICANT: Dilks, Daniel W
APPLICANT: Chang Ling, Hua
APPLICANT: Sokol, Patricia
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CURRENT APPLICATION NUMBER: US/10/062,879
CURRENT FILING DATE: 2002-01-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 4 SOFTWARE: PatentIn Ver. 2.0
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APPLICANT: Dilks, Daniel W.
APPLICANT: Chang Ling, Huai-Ping
APPLICANT: Sokol, Patricia T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: US/09/178,109 PRIOR FILING DATE: 1998-10-23
                                                                                                                                                                                                                                                                                                                                               TYPE: DNA ORGANISM: human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 2064
TYPE: DNA
ORGANISM: human
                                                                                                                                                                                                                                                                                                                                                                                   LENGTH: 2121
                                                                                                                                                                                                                                                             Local Similarity
nes 37; Conserv
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                                                                                                                                                                                     2072 GCATGCTCCCGGCCGCCATGGCCGCGGGATTTTTACAAGACA 203:
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                                                                                                                                                                                                           11 GCATGCTCCCGGCCGCCATGGCCGGGGATTGTCATGAGGCA 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chang Ling, Huai-Ping Sokol, Patricia T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dilks, Daniel W
                Smith, John M.
                                Reed, Steven G.
Misher, Lynda E
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Pred. No. 0.013;
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Pred. No. 0.013;
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                                                                                                                                  ; NAME/KEY: misc_feature
; LOCATION: (1)...(484)
; OTHER INFORMATION: n = A,T,C
US-09-810-936-175
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NUMBER OF SEQ ID NOS: 334

SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL
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CURRENT FILING DATE: 2001-08-07
NUMBER OF SEQ ID NOS: 340
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 175
LENGTH: 484
                                                                   Matches
                                                                                    Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: THERAPY AND DIAGNOSIS OF BREAST CANCER FILE REFERENCE: 210121.419C11
CURRENT APPLICATION NUMBER: US/09/810,936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Frudakis, Tony N. APPLICANT: Reed, Steven G. APPLICANT: Smith, John M. APPLICANT: Misher, Linda E. APPLICANT: Dillon, Davin G.
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                                                                                                                                                                                                                                 LENGTH: 48
TYPE: DNA
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                                                                                                                                                                                                               ORGANISM: Homo sapien
                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION: 30
OTHER INFORMATION: n = A,T,C or G
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
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                                                                                   Local Similarity
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      25
                                11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG
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Day, Craig H.
Li, Samuel X.
Deng, Ta
                                                                                                                                                                                                                                                                                                                                                                                            Harlocker, Susan L.
Day, Craig H.
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Skeiky, Yasir A.W.
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Harlocker, Susan L.
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                                                                  Conservative
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75.98;
                                                                                 24.18;
75.98;
                                                                  Score 33.8; DB Pred. No. 0.011; 0; Mismatches
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LENGTH: 484
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Best Local
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                                                                                Query Match
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LENGTH: 711
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                                                                    Best
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APPLICANT: Lightfoot, David
APPLICANT: Lightfoot, David
APPLICANT: Meksem, Khalid
TITLE OF INVENTION: ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI UNDERL
TITLE OF INVENTION: RESISTANCE TO SOYBEAN CYST NEMATODE AND SOYBEAN SUDDEN DEATH SYN
TITLE OF INVENTION: METHODS EMPLOYING SAME
FILE REFERENCE: 1268/4/2
CURRENT APPLICATION NUMBER: US/09/772,134B
CURRENT FILING DATE: 2001-01-29
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CURRENT FILING DATE: 1999-10-28
NUMBER OF SEQ ID NOS: 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: COMPOSITIONS AND MALLINGER CANCER TITLE OF INVENTION: TREATMENT AND DIAGNOSIS OF BREAST CANCER FILE REFERENCE: 210121.41906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                              SOFTWARE:
                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/178,811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc_feature
LOCATION: (1)...(484)
OTHER INFORMATION: n = A,T,C
                                                                                                                                    NAME/KEY: misc_feature
LOCATION: (1)..(711)
OTHER INFORMATION: n is an undetermined nucleotide (dATP, dCTP, dGTP,
                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                        ORGANISM: soybean
                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
                                                                  Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCAACTAAACCCTTG
                 11 GCATGCTCCCGGCCGCCATGGCCGGGGATTGTCATGA 48
                                                                  Similarity
                                                                                                                                                                                                                                                                              PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCATGNTCCCGGCCGCCATGGCCGCGGGATTCGGGGTGATGCCTCCTCAGGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FastSEQ for Windows Version 3.0
Smith, John M.
Reed, Steven G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dillon, Davin C.
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Retter, Marc W.
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                                                    Conservative
                                                                  23.7%; 92.1%;
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75.98;
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                                                  Score 33.2; DB Pred. No. 0.02; 0; Mismatches
                                                                                    DB 10;
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••
                                                                                  Length 711;
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                                                    Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                        or dTTP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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   LENGTH:
TYPE: DN
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RESULT 12
US-10-043-875-841/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 52
LENGTH: 163
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 841, Application US/10043875 Publication No. US20030054339A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
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                       SEQ ID NO 841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                         TITLE OF INVENTION: Method for Detection of Drug-Induced Mutations in the HIV Reverance: Invention: Transcriptase General Reference: 11362-0033-NPUSO1 (INS:033) CURRENT APPLICATION NUMBER: US/10/043,875 CURRENT FILING DATE: 2002-04-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/182,145
PRIOR EILING DATE: EARLIER FILING DATE: 1998-10-29
PRIOR APPLICATION NUMBER: EARLIER FILING DATE: 1997-10-29
PRIOR FILING DATE: EARLIER FILING DATE: 1997-10-29
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/073,612
PRIOR APPLICATION NUMBER: EARLIER FILING DATE: 1998-02-04
PRIOR FILING DATE: EARLIER FILING DATE: 1998-02-04
PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/081,695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/112,267
CURRENT FILING DATE: 2002-03-27
                                              NUMBER OF SEQ ID NOS: 884
SOFTWARE: PatentIn version
                                                                                                                                             PRIOR APPLICATION NUMBER: 60/286,102
PRIOR FILING DATE: 2001-04-24
PRIOR APPLICATION NUMBER: EP 0187008:
PRIOR FILING DATE: 2001-04-20
                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: De Smet, Koenraad APPLICANT: Stuyver, Lieven
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 156
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TITLE OF INVENTION: WISP POLYPEPTIDES AND NUCLEIC ACIDS
                                                                                              PRIOR APPLICATION NUMBER: EP 01870005.4 PRIOR FILING DATE: 2001-01-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR FILING DATE: EARLIER FILING DATE: 1998-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: P1176R2
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LOCATION: 1-163
COTHER INFORMATION: Sequence is synthesized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Artificial sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            123 GCATGCTCCCGGCCGCCATGGCCGCGGGATAATCACTAG
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669
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Hillan, Kenneth J.
Lawrence, David A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Application US/10112267
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Roy, Margaret Ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cohen, Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pennica, Diane
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                version 3.1
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                                                                                                                                                                      EP 01870085.
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; TYPE: DNA ; ORGANISM: Simulium vittatum US-09-894-916-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; FEATURE:

NAME/KEY: misc_feature

LOCATION: (1)..(713)

OTHER INFORMATION: n is an undetermined nucleotide

US-09-772-134B-82
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Best Local Similarity
"hehes 32; Conserv?
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Human immunodeficiency virus US-10-043-875-841
                                                                                                                                 APPLICANT: Hinter, Fiona F.
APPLICANT: Hinter, Fiona F.
APPLICANT: Hidochka, Michael J.
TITLE OF INVENTION: Encoding Cocoon Silk Protein From Simulium Vittatum And Nucleic TITLE OF INVENTION: Encoding Such Protein
FILE REFERENCE: 1468-001A
CURRENT FILIG NUMBER: US/09/894,916
CURRENT FILING DATE: 2001-06-29
PRIOR APPLICATION NUMBER: 60/214992
PRIOR APPLICATION NUMBER: 60/214992
PRIOR FILING DATE: 2000-06-29
NUMBER OF SEQ ID NOS: 7
COCCURRENCE SEQ ID NOS: 7
                                                                                                                     SEQ ID NO 6
LENGTH: 831
                                                                                                                                                                                                                                                                                                                                                                           Sequence 6, Application US/09894916 Publication No. US20030032089A1 GENERAL INFORMATION:
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Matches
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CURRENT FILING DATE: 2001-01-29
PRIOR APPLICATION NUMBER: 60/178,811
PRIOR FILING DATE: 2000-01-28
NUMBER OF SEQ ID NOS: 122
SOFTWARE: Patentin version 3.0
SEQ ID NO 82
LENGTH: 713
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Southern Illinois University
APPLICANT: Lightfoot, David
APPLICANT: Lightfoot, David
APPLICANT: Meksem, Khalid
APPLICANT: Meksem, Khalid
TITLE OF INVENTION: ISOLATED POLYNUCLEOTIDES AND POLYPEPTIDES RELATING TO LOCI UNDERL
TITLE OF INVENTION: RESISTANCE TO SOYBEAN CYST NEWATODE AND SOYBEAN SUDDEN DEATH SYN
FILE REFERENCE: 1288/4/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 713
TYPE: DNA
ORGANISM: soybean
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
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97.0%;
  22.48;
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97.0%;
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Pred. No. 0.093;
0; Mismatches 1;
  Score 31.4; DB Pred. No. 0.096;
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Pred. No. 0.092;
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                  DB 9;
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                Length 831;
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APPLICANT: Wang, TongTong
APPLICANT: MCNeill, Patricia D.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND FILE REFERENCE: 210121.491C5
CURRENT APPLICATION UMBER: US/09/778,320
CURRENT FILING DATE: 2001-02-06
NUMBER OF SEO ID NOS: 301
SOFTWARE: FastSEQ for Windows "
SEO ID NO 250
LENGTH: 215
TYPE: N"
                                                                                                                                            ; FEATURE:
NAME/KEY: misc_feature
LOCATION: (1)...(215)
OTHER INFORMATION: n=A,T,C or G
US-09-778-320-250
Search completed: May 25, Job time: 45.2464 secs
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US-09-778-320-250
                                                                                              Query Match
Best Local S
Matches 31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                               LENGTH: 215
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                              Local Similarity nes 31; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11 GCATGCTCCCGGCCGCCATGGCCGCGGGATT 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  32;
                                            GCATGCTCCCGGCCGCCATGGCCGCGGGATT 50
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Application US/09778320
                                                                                              Conservative
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                                                                                                        22.1%;
100.0%;
          2003, 20:21:58
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Pred. No.
                                                                                            Mismatches
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0.1;
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                                                                                                                 Length 215;
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BI262739 EST003 SU
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BO015880 CIT-HSD-2
BP018827 BP018827
A0133472 HAAD82 HA
BB021948 AB021948
BB16177 347C21.TP C
B38957 HS-1048-B2-AA012772 RBU2008CC
AI738079 ESTROT09
BM139620 AB029050
AW888331 E45 Rat d
AI738086 ESTROT09
BM139628 Gm-35-104
AA052854 T7513 B10
AA585076 T7545 B10
AA585076 T7545 B10
AA585076 T3645 B10
AA052854 T3541 B10
BG006643 RC2-GN026
BI203089 PC89R1 PC
BW139960 Gm-R2 Soy
AW224940 EST006 P1
AV735727 AV735727
AF093132 Homo sapi
AA052864 T3541 B10
AT006477 BE411794 ISC009 D0
BM359493 GA_Ea002
AI728966 BNLGH1109
BG443394 GA_Ea002
AI728966 BNLGH1121

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Result
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Maximum DB seq
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    000
                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                  Score
   38.4
32.8
32.4
32.4
32.2
                                                                                                                                                                                                                                                                                                                                                                 of hits satisfying chosen parameters:
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length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                               16154066 seqs, 8097743376 residues
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Listing first 45 summaries
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AJ251073
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AZ366183
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4647.728 Million cell updates/sec
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AA255342 T3598 Blo
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BM579445 170006872
BIZ73615 A1241_le
AQ058015 CIT-HSP-2
AZ366183 1M0115K24
                                                Description
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                                                                                                                                                          521 bp mRNA linear EST 14-MAR
T3598 Bloodstream form of serodeme ILTatl.1 Trypanosoma brucei
brucei cDNA 5', mRNA sequence.
                                        International Livestock Research Institute
Box 30709, Nairobi, Kenya
Tel: 254 2 630 743
Fax: 254 2 631 499
                                                                                                                                Trypanosoma brucei brucei.
Trypanosoma brucei brucei
                                                                    Unit 3
                                                                          Contact: Osanya A
                                                                                                                                              AA255342.1 GI:1889945
EST.
                                                                                                                  Trypanosoma
                                                                                                                         Eukaryota; Euglenozoa; Kinetoplastida; Trypanosomatidae;
                          il: a.osanya@cgnet.com
primer: M13 primer.
                                                                                                                                                                                                                                       Location/Qualifiers
1. 521
/organism="Trypanosoma brucei brucei"
/strain="Clone A4"
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AQ110909 CIT-HSP-2

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RESULT 2
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58
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Rattus norvegicus
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AJ251073
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                                                                                                                                                                                                                                                                                                                                                                                              Department of Neurobiology
Institute of Basic Medical Sciences
                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Ma MZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (1999)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hypoxia
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GCATGCTCCCGGCCGCCATGGCCGCGGGATTCTGAT
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/note="cDNAs were generated from poly (A+) enriched mRNA
/note="cDNAs were generated from poly (A+) enriched mRNA
prepared from different developmental stages of T b.brucei
by reverse transcription followed by PCR amplification
using mini-exon and oligo(dT) primers. The cDNA generated
were utilized in RADES-PCR coupled with differential
hybridisations to identify differentially expressed mRNA
transcripts. The products which showed to be
                                                                                                                                                                                                       /clone_lib="Rattus norvegicus library (Ma MZ)"
/note="Organ: brain; Vector: pGEM-T; with treath by
endostatin, the differential expressed cDNAs were cloned
into the pGEM-T vector. The 3'anchor primer is
AAGCTTTTTTTTTTTTTTTTT, and the 5'arbitrary primer is 10-mer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    being) sequenced to generate differentially expressed sequence tags." 140 \text{ c} \qquad 117 \text{ g} \qquad 113 \text{ t}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        differentially expressed were cloned pGEM -T vector. These differentially expressed mRNA transcripts were (are
                                                                                                                                                                     oligo. Individual clone was sequenced with primer."
                                                                                                                                                                                                                                                                                                             /organism="Rattus norvegicus"
/db_xref="taxon:10116"
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                                                                                23.4%; 94.4%;
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Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Celera Genomics
45 w. Gude Dr., 1
Tel: 2404533151
Fax: 2404534580
                                                                                                                                                                                                                                                                                                                                           Anopheles gambiae
Anopheles gambiae
Eukaryota; Metazoa: Arthropoda; Hexapoda; Insecta; Pterygota;
Neontera: Endopterygota; Diptera; Nematocera; Culicoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BM579445
686 bp mRNA linear EST 22-FEB-2
17000687238519 A.Gam.ad.cDNA.bloodl Anopheles gambiae cDNA clone
19600449682280 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Celera Anopheles gambiae EST project Unpublished (2002)
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                                                                                                                  Al241 le Aplysia metacerebral cell cDNA library Aplysia cDNA 5', mRNA sequence.
BI273615
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Seq primer: M13 Reverse.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Holt R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        African malaria mosquito
Eukaryota; Metazoa; Mollusca; Gastropoda; Opisthobranchia;
Anaspidea; Aplysiidae; Aplysia.
1 (bases 1 to 733)
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                                                 Aplysia californica
                                                                                                    BI273615.1
                                                                    California sea hare.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="vector: pSport1; Site_1: Sal1; Site_2: Not1; Whole adult mosquitoes (mixed sex) frozen on liquid nitrogen 2 hours after human blood feeding cDNA inserts >500 bp cloned directionally into pSport 1. Not 1 site is 3'. Clones available through the Malaria Research and Reference Reagent Resource Center (www.malaria.mr4.org)" a 157 c 199 g 189 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /clone="19600449682280"
/clone_lib="A.Gam.ad.cDNA.blood1"
/dev_stage="Adult"
/lab_host="DH10b"
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/strain="RSP-ST (Reduced susc.
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Contact: Sadreyev RI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AQ058015 431 bp DNA linear GSS 30-JUL-1998 CIT-HSP-2342C13.TF CIT-HSP Homo sapiens genomic clone 2342C13, DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The Whitney Laboratory University of Florida
                                                                                                                                      http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
Seq primer: m13-21
Class: BAC ends.
                                                                                                                                                                                            end search page:
                                                                                                                                                                                                         Clones are available from Research Genetics (info@resgen.com).
                                                                                                                                                                                                                                                                            The Institute for Genomic Research 9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                               Contact: Mark Adams
Department of Eukaryotic Genomics
                                                                                                                                                                                                                                                                                                                                                   Other_GSSs: CIT-HSP-2342Cl3.TR
                                                                                                                                                                                                                                                                                                                                                                   Unpublished (1998)
                                                                                                                                                                                                                                                                                                                                                                                                     Use of a random BAC End Sequence Database for Sequence-Ready Map
                                                                                                                                                                                                                                                                                                                                                                                                                    Adams,M.D., Rounsley,S.D., Zhao,S., Field,C.E., Bass,S., Linhe Golden,K., Berry,K., Granger,D., Suh,E., Wible,C., Shizuya,H., Simon,M. and Venter,J.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 431)
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Seq primer: 5' CGACGTGGACTATCCATGAACGCA 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tel:
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                                                                                                                                                                                                                             Email: mdadams@tigr.org
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/tissue_type="nervous system"
/cell_type="Metacerebral cell"
/note="Vector: pGEM-T"
/ 205 c 147 g 184 t
                                                      /db_xref="taxon:9606"
/clone="2342Cl3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Aplysia californica"
/db_xref="taxon:6500"
                                                                                   /organism="Homo sapiens"
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/cell_type="Sperm"
                                     /clone_lib="CIT-HSP"
                                                                                                                     Location/Qualifiers
                      /sex="Male"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0115 row: K column: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Robert B. University of Utah University of Utah
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512 bp DNA linear GSS 02-OCT-200
1M0115K24F Mouse 10kb plasmid UUGCIM library Mus musculus genomic
clone UUGCIM0115K24 F, DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                High quality sequence stop:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seq primer: CGTTGTAAAACGACGGCCAGT
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Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C.
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,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
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HindIII"
                                          (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4
                                                                                                                                          /lab_host="E. Coli strain xL10-Gold, T1-resistant, F/note="Vector: PWD42Dv; Purified genomic DNA from Musculus C57BL/6J (male) was obtained from the Jack Laboratory Mouse DNA Resource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biomedical Polymers Research Bldg.,
                     polynucleotide kinase. Adaptor oligonucleotides were
                                                                                                                                                                                                                                                                                             /db_xref="taxon:10090"
/clone="UUGC1M0115K24"
                                                                                                                                                                                                                                                                                                                                                /organism="Mus musculus"
/strain="C57BL/6J"
                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                     /clone_lib="Mouse 10kb plasmid UUGC1M library"
ligated to the blunt ends in high molar excess.
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Pred. No. 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Std Error: 0.00
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BASE COUNT
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BI262739/c
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Best Local
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                     source
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 AGCGTCCCCCAACAAGCTTCATGCATATGGAGTATGGTCTAGGGATCCG 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61;
                                     11 GCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATG 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 559 bp mRNA linear EST 18-JUL-20, EST003 Subtracted larval fat body library, bacteria-induced genes Manduca sexta cDNA clone 3 3', mRNA sequence.
BI262739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6 ATACAGCATGCTCCCGGCCGCCATGGCCGCGGGATTGTCATGAGGCCAACTAAACCCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Response of the Tobacco Hornworm, Manduca Sexta Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea; Sphingidae; Sphinginae; Manduca.

1. (bases 1 to 559)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           449 Chem/Biochem, Manhattan, Tel: 785 532 6964 Fax: 785 532 7278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Department of Biochemistry Kansas State Universtiy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Manduca sexta
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: kanost@ksu.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Contact: Kanost M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zhu,Y.-F.: Johnson,T.J.: Kanost,M.R.
Identification of Differentially Expressed Genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tobacco hornworm.
                                                                                                   Similarity
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GCATGCTCCCGGCCGCCATGGCCGCGGGATTAGCGTG 129
                                                                                                                                                                                                                                                                                                                                                                                                                                 primer: SP6
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                                                                                                                                                                                     107
                                                                                                                                                                                                                                                                                                                                                                                       quality sequence stop: 560.
Location/Qualifiers
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                                                                                                                                                                            /clone_lib="Subtracted larval fat body library,
bacteria-induced genes"
/tissue_type="Fat Body"
/dev_stage="5th Instar larva"
/note="Vector: pGEM-T Vector: Site_1: EcoRI; Site_2: XhoI"
a 174 c 147 g 130 t 1 others
                                                                                                                                                                                                                                                                                                          /db_xref="taxon:7130"
/clone="3"
                                                                                                                                                                                                                                                                                                                                                    /organism="Manduca sexta"
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91.9%;
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Pred. No. 28;
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                                                                                                                       DB 13;
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RESULT 8
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                      COMMENT
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ORGANISM
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BI262743/c
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                                                                          AUTHORS
TITLE
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Best Local :
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                                    JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                  543 GCATGCTCCCGGCCGCCATGGCCGCGGGATTAGCGTG 507
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34;
                                                        Dhu,Y.-F.: Johnson,T.J.: Kanost,M.R.
Zhu,Y.-F.: Johnson,T.J.: Kanost,M.R.
Identification of Differentially Expressed Genes in the Immune
Response of the Tobacco Hornworm, Manduca Sexta
                                                                                                                              Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia;
Sphingiodea; Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                    EST008 Subtracted larval Manduca sexta cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 617)
Zhu,Y.-F.: Johnson,T.J.: Kanost,M.R.
Identification of Differentially Expressed Genes in the Immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota; Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sphingiodea; Sphingidae; Sphinginae; Manduca.

1 (bases 1 to 617)
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                                    Unpublished (2001)
                                                                                                                                                                                                                              EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Department of Biochemistry Kansas State University
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Response of the Tobacco Hornworm, Manduca Sexta Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Manduca sexta
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                  Contact: Kanost M
                                                                                                                                                                                        Manduca sexta
                                                                                                                                                                                                              tobacco hornworm
                                                                                                                                                                                                                                                BI262743.1
                                                                                                                                                                                                                                                                                    mRNA sequence.
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High quality sequence stop: 493
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Fax: 785 532 7278
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tobacco hornworm.
Department of Biochemistry
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    kanost@ksu.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bacteria-induced genes"
/tissue_type="Fat Body"
/dev_stage="5th Instar larva"
/note="Vector: pGEM-T Vector; Site_1: EcoRI; Site_2: XhoI"
123 c 98 g 205 t 2 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /clone="002"
/clone_lib="Subtracted_larval fat body library,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /db_xref="taxon:7130"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Manduca sexta"
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Pred. No. 29;
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body library, bacteria-induced genes
3' similar to coatomer alpha subunit,
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body library, bacteria-induced genes
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REFERENCE
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B30807
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ORGANISM
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Best Local
            Query Match
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Matches 38; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B30807 373 bp DNA linear GSS 17-OCT-1997
HS-1003-A2-B01-MR.abi CIT Human Genomic Sperm Library C Homo
Sapiens genomic clone Plate=CT 497 Col=2 Row=C, DNA sequence.
                                                                                                                                                                                                                                      High quality sequence stop: 373.
Location/Qualifiers
                                                                                                                                                                                                                                                                                      Sequence Tagged Connector Plate: CT 497 row: C co
                                                                                                                                                                                                                                                                                                                                                                    University of Washington
Seattle, WA 98195, USA
                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                Mahairas,G.G., Zackrone,K.D., Smith,T., Tipton,S., Schmidt,S. Traicoff,R., Abajian,C., Blanchard,A., West,A. and Hood,L.E. Construction of a Characterized Clone Resource for Genomic Sequencing: Generation and Preliminary Analysis of 20,000 Sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 373)
Mahairas, G.G., Zackrone, K.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 373)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens genomic clone
B30807
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     449 Chem/Biochem,
Tel: 785 532 6964
Fax: 785 532 7278
                                                                                                                                                                                                                                                                                                                                                                                                       Contact: Mahairas GG, Zackrone KD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
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                                                                                                                                                                                                                                                                                                                                     (206) 616-8744
(206) 685-7301
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             Conservative
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                                                                                                                                                                                                                                                                                                                    kzackron@u.washington.edu
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="Fat Body"
/dev_stage="5th Instar larva"
/dev_stage="5th Instar larva"
/note="Vector: pGEM-T Vector; Site_1: EcoRI; Site_2: XhoI"
/note="Vector: pGEM-T Vector; Site_1 & others
                                                                                                           /note="Organ: sperm; Vector: pBeloBAC11; BAC Clones in
E-Coli DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Manduca sexta"
/db_xref="taxon:7130"
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                                                                                                                                                      /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="plate=CT 497 Col=2 Row=C"
/clone_lib="CIT Human Genomic Sperm Library
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone_lib="Subtracted larval fat body library,
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Pred. No. 32;
                           Score 32; DB 17;
Pred. No. 27;
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Homo sapiens
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Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93 TGGAGTATGGTCTAGGGATCCGGGTACCGAGCTCGAATTCGCCCTATA 140
                                                                                                                                                                             Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                          CIT-HSP-2314E8.TF CIT-HSP Homo sapiens genomic clone 2314E8, DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: yuchang910@163.com
Seg primer: M13 Forward
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jianshe Road, Xinxi
Tel: 00863733328084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (2002)
Contact: Lee Yuchang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Expressed sequence tags from cDNA subtractive short interval successive partial hepatectomy
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Henan Normal Univ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Lee, Y. and Xu, C
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AQ015890.1
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                                    sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note="Vector: pT7T3D-Pac (Pharmacia).with a modified polylinker; Site_1: Not I; Site_2: Eco RI; The UI R-DQ1 library is a normalized Rat Cell Line R3327-5A library (nR5A) constructed in pT3T7 PAC vector according to the procedure described by Bonaldo, Lennon & Soares (Normalization and Subtraction: Two Approaches to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /organism="Rattus norvegicus"
/strain="Sprague-Dawley"
/db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                     Iowa
                                                                                                                                                                                                                                                                                                                                                                                                      R3327-5A was provided by Mary Hendrix of the University of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /tissue_type="liver"
/note="Vector: pT7T3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /sex="male"
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  GI:3194626
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Use of a random BAC End Sequence Database for Sequence-Ready Map Building (1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished (1998)
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1 (bases 1 to 442)

Adams, M.D., Rounsley, S.D., Zhao, S., Field, C.E., Bass, S., Linher, K., Golden, K., Berry, K., Granger, D., Suh, E., Wible, C., Shizuya, H.,
                                                                                                                                                                                                                                                                                                                                                         BP018827 237 bp mRNA linear EST 15-MAR-2002
BP018827 Nori Satoh unpublished cDNA library, larva Ciona
intestinalis cDNA clone cilv05c06 5', mRNA sequence.
BP018827
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http://www.tigr.org/tdb/humgen/bac_end_search/bac_end_search.html.
seq primer: M13-21
class: BAC ends.
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Clones are available from Research Genetics (info@resgen.com). BAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The Institute for Genomic Research 9712 Medical Center Dr., Rockville,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Department of Eukaryotic Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Mark Adams
                                                                                                                                                                            Satoh,N., Satou,Y., Kohara,Y. and Shin-i,T
Expressed genes in Ciona intestinalis
Unpublished (2000)
                                                                                                                                                                                                                                                                                         Ciona intestinalis
                                                                  Kyoto University
Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
Fax: 81-75-705-1113
                                                                                                                                          Contact: Nori Satoh
Department of Zoology
                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Phlebobranchia; Cionidae; Ciona.
                                                                                                                                                                                                                                                                                                          Ciona intestinalis.
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301 838 0208
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                                                    satoh@ascidian.zool.kyoto-u.ac.jp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="2314E8"
/clone_lib="CIT-HSP"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cell_type="Sperm"
/note="Vector: pBeloBAC11; Site_1:
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1. .23/
/organism="Ciona intestinalis"
                                Location/Qualifiers
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AI133472.1
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Department of Hematology
Beijing Institute of Radiation Medicine
27 Taiping Road, Beijing 100850, P.R.China
77el: 0086-10-68159479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 497)
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                                                       AB021948 1222 bp mRNA linear EST 07-JAN-1999 AB021948 Oryza sativa ms-bo-Taichung 65 immature anther Oryza sativa cDNA clone DD2R3-1, mRNA sequence.
AB021948 AB021948 AB021948
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 Oryza sativa
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                              EST
               Oryza sativa
                                            AB021948.1 GI:4107135
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/clone="cllv05c06"
/clone="cllv05c06"
/clone="lb="Nori Saroh unpublished cl
/tissue_type="whole animal"
/tissue_type="whole animal"
/dev_stage="larva"
/note="Vector: pBluescript SK"
/note="Vector: 65 g 58 t 1 or
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/lab_host="MC1061/P3"
/note="vector: pCDNA1"
115 c 141 g
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/clone_lib="Human fetal liver cDNA library"
/tissue_type="liver"
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REFERENCE
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COMMENT
Search completed: May 25, 2003, 20:17:10 Job time: 491.844 secs
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ORIGIN
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Source
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Best Local Similarity 94.3
Matches 33; Conservative
                                                                      Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzae; Oryza.

1 (bases 1 to 1222)
Toriyama, K. and Ohhashi, Y.
EST of immature anther of rice
Unpublished (1999)
Contact: Toriyama K
Faculty of Agriculture, Laboratory of Plant Breeding
Tohoku University
                                                                                                                                                                                                                                                                                                                                                                                                          Email: torikin@bios.tohoku.ac.jp.
Location/Qualifiers
1. .1222
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                                                                                                                                                                                                                                           297
                                                                                                                                                                                                                               /organism="Oryza sativa"
/strain="ms-bo-Taichnng 65"
/db_xref="taxon:4530"
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/ dev_stage="immature anther"
                                                                                                                                             22.7%; Score 31.8; D
94.3%; Pred. No. 52;
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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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AUTHORS TITLE	REFERENCE	ORGANISM	SOURCE	KEYWORDS	VERSION	ACCESSION	DEFINITION	LOCUS	RESULT 1 HVHOR117
Entwistle, J. Direct Submission	<pre>Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Hordeum. 1 (bases 1 to 1420)</pre>	Hordeum vulgare subsp. vulgare	Hordeum vulgare subsp. vulgare.	endosperm; seed storage protein.	x60037.1 GI:19000	X60037	H.vulgare horl-17 gene for C-hordein.	HVHOR117 1420 bp DNA linear PLN 05-MAY-1995	

PLN 19-JAN-1994 nt]

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BASE COUNT
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                                                                                                                                                                                                                                                                                                                                                                                               492 AGGCAACTAAACCCTAGCAGCCAAGAGTTGCAATCACCACCAACAATCATATCTGCAGCAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Entwistle, J., Knudsen, S., Muller, M. and Cameron-Mills, V. Amber codon suppression: the in vivo and in vitro analys C-hordein genes from barley Plant Mol. Biol. 17 (6), 1217-1231 (1991)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (04-JUN-1991) J. Entwistle, Dept of Physiology Carlsberg Lab and, Carlsberg Research Laboratory, Gl Carlsbergvej 10, DK 2500
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Muller,M. and Knudsen,S
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CAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCT 423
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                                  CAGCAACCACAACCATTCCCACAGCAACCACCACACCATTCCCCACAGCAACCACAA
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/db_xref="GI:19001"
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109. .136
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244 CAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCC
                                                                                                                                                                                                                                                                                       4 AGGCAACTAAACCCTTGCAGCCAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAG 63
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C-hordein [Hordeum vulgare=barley,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenBank staff at the National Library of Medicine created this entry [NCBI gibbsq 139925] from the original journal article. This sequence comes from Fig. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8396543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nucleotide sequence of the barley C-hordein Genetika 29 (7), 1070-1079 (1993)
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1 (bases 1 to 2806)
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94710, USA
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Hsia,C.C. and Anderson,O.D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hsia,C
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       Isolation and characterization
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                                                              TATCCATTGCAACAACCATTTCCTACACCCCAACAACAATTTCCCCCAGCAATCACAA
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                                                                                                                                                                                                                                                                               /note="in-frame stop codon" 3626. .3631
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aestivum omega gliadin
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                                                                                                                                                                                                                                                                                                             /codon_start=1
/product="omega gliadin"
3026. .3028
                                                                                                                                                                                                                                                                                                                                                                                   /dev_stage="embryo"
2372. .2377
2477. .3550
                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:4565"
/chromosome="1"
                                                                                                                                                                                                                                                                                                                                                                   /note="prolamine
                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="omegaG3"
                                                                                                                                                                                                                                                                                                                                                        /pseudo
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                                                                                                                                                                                                                                                                                                                                            Submitted (17-APR-1997) Plant
                                                                                                                                                                                                                                                                                                                                                                         Clarke, B. and Appels, R.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Viridiplantae; Streptophyta; Embryophyt
Spermatophyta; Magnoliophyta; Liliopsida; Poales;
Pooideae; Triticeae; Secale.
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Secale cereale
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                                                                                                                                                          locus; this sequence covers multigene family" <2751. .>3825
                /codon_start=1
/product="omega secalin"
/protein_id="AAB58403.1"
/db_xref="GI:2145025"
                                                                                                                                 /product="omega secalin"
<2751. .>3825
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                                                                                                                /note="there are
                                                                                                                                                                                  /note="there are 15 omega secalin genes at the Sec-1 locus; this sequence covers one complete unit of this
                                                                                                                                                                                                                  /tissue_type="endosperm"
1. .9248
                                                                                                                                                                                                                                                /map="1RS"
                                                                                                                                                                                                                                                           /db_xref="taxon:4550"
/chromosome="1"
                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                     function="seed storage"
                                                                                                                                                                                                                                                                                       /organism="Secale cereale"
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                                                                     2 (bases 1 to 1832)
Hull, G.A., Halford, N.G., Kreis, M. and Shewry, P.R.
Isolation and characterisation of genes encoding rye prolamins containing a highly repetitive sequence motif
Plant Mol. Biol. 17 (5), 1111-1115 (1991)
                                                                                                                                                               Direct Submission
Submitted (20-SEP-1991) N.G. Halford, Long Ashton Research
University of Bristol, Dept of Agricultural Sciences, Long
Bristol BS18 9AF, UK
                                                                                                                                                                                                                                         Spermatophyta; Magnoliophyta; En Pooideae; Triticeae; Secale.

1 (bases 1 to 1832)

Halford.N C
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x60295; x61:21203
x60295; GI:21203
prolamin; repetitive sequence;
secale cereale.
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QQPFFQQPQGF1PQQQYSEFQQPPQQFFPQQPQQ11PQQPQQFFPQQPPQQFFPQQP
QQPFFQQPEQ1ISQQFFPLQPQQFFFSQPFQPQFF1IPQQPPQQFSFQQFFQQPFSQ
QPQRPQQFFQQFF1QQPQQFFFQQPFPQQPFQQFFGQQPEQ1ISQQPQQFFL
QPQQFFQQPFQQFFLQQPQQFFPLQPQQFFPLQPQQFFPQQFFDQISBQPQQFFLQP
QQPFSQPQQPFLXPFFYPQQPFQVIF
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1. .1832
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535. .1548
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604 c 208 g
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QQPSPQQPOLPFPOPOQPFVVVV"
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/product="Sec! precursor"
/protein_id="CAA42837.1"
/db_xref="G1:21204"
/db_xref="SPTREMBL:005573"
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373. .378
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478. .1551
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/clone_lib="Genomic library
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/chromosome="1R, shor
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                                                                                                                                    199
                                                                                                                                                                                                  324;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (20-SEP-1991) N.G. Halford, Long Ashton Research Station, University of Bristol, Dept of Agricultural Sciences, Long Ashton, Bristol BS18 9AF, UK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Secale.
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x60294 x60117
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ACACCGCAACAATATTCCCCCCTATCAACCACAGCAACCATTTCCCCCAACCCCAACAACCA
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199. .1212
/gene="Sec1"
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QPQRPQQPFPQQPQQIIPQQPQQPFPLQPQQPVPQQPARPFGQQPEQIISQRPQQPFPLQP
LQPQQPFSQPQQFFPQQPGQIIPQQPGQPFPLQPQQPFPQQPEQIISQQPQQPFPLQP
                                                                                                                                                                                                                                                                          /product="unnamed"
514 c 136 g
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/clone_lib="Genomic library in lambda Sec1"
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AF280605
                                                                                                                                                                                                                                                                                                                                                                              Submitted (20-JUN-2000) Western Regional Research Center, Agricultural Research Service, 800 Buchanan Street, Alban
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.

1 (bases 1 to 3789)
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94710, USA
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Hsia,C.C. and Anderson,O.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hsia,C.C. and Anderson,O.D. Isolation and characterization
                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
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2359. .2364
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                                                                                                                                                                                                                                                                                            /chromosome="1"
/clone="omegaF20b"
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            Score 219.6; DB 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              M36941.1 GI:167062
alcohol-soluble prolamin; hordein; seed
Hordeum vulgare subsp. vulgare.
Hordeum vulgare subsp. vulgare
Eukaryota; Viridiplantae; Streptophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carlsberg Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Entwistle, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Spermatophyta; Magnoliophyta; Liliopsida;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Primary structure of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pooideae; Triticeae; Hordeum
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                    AQQDIWSDIALLG"
429. .488
489. .1469
                                                                                                     /strain="Bomi"
/db_xref="taxon:112509"
/tissue_type="inunature of the control of 
                                                                                       QIITQQPFPLQPQQLFPQQPQQPLPQPQQPFRQLPKYIIPQQPQQPFLLQPHQPQQPY
                                                                                                                                                                                                                                                                                                          /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Hordeum vulgare
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
/product="C hordein'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Commun.
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Triticum aes
AB059812
AB059812.1
                                                                                                                                                         Direct Submission
Submitted (12-APR-2001) Ali Masoudi-Nejad, Kyoto University, Graduate School of Agriculture, Laboratory of Plant Genetics; Kitashirakawa olwake-cho, Kyoto, Kyoto 606-8502, Japan (E-mail:amasoudin@hotmail.com, Tel:81-75-753-6145, Fax:81-75-753-6486)
                                                                                                                                                                                                                                                                                                               1A-encoded Omega-type prolamin
Genome 45, 661-669 (2002)
2 (bases 1 to 1858)
                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae; Triticeae; Triticum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Triticum aestivum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Triticum aestivum (cultivar:Chinese Spring) DNA
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                                                                                                                                                                                                                                                                                               Masoudi-Nejad, A. and Nasuda, S
                                                                                                                                                                                                                                                                                                                                                                                 Molecular cloning, sequencing, and chromosome mapping
                                                                                                                                                                                                                                                                                                                                                                                                        Masoudi-Nejad, A., Nasuda, S.,
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    /cultivar="Chinese Spr
/db_xref="taxon:4565"
/chromosome="1"
/map="1AS"
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aestivum pseudogene
                                                                                              /organism="Triticum aestivum"
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                                                                       FEATURES
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                                                                                                                                                                                                                                                                                                                     VERSION
                                                                                                                                                                                                                                                                                                                                                               FOCUS
                                                                                                                AUTHORS
TITLE
                                                                                                                                                                                                                                                                             ORGANISM
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                                                                                                                                                                                        TITLE
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                                                                                                  JOURNAL
                                                                                                                                                                                                      AUTHORS
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                                                                                  Submitted (02-NOV-1999) Plant Canberra, ACT 2615, Australia
                                                                                                                2 (bases 1 to 4971)
Murray, F.R. and Appels, R.
Direct Submission
                                                                                                                                                                                  Pooldeae; Triticeae; Secale.

1 (bases 1 to 4971)
Murray,F.R. Skerritt,J.H. and Appels,R.
A gene from the Sec2 (Gli-R2) locus of a wheat 2RS.2Bl chromosomal
                                                                                                                                                                                                                                            Secale cereale
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
                                                                                                                                                                                                                                                                                                                                   Secale cereale secalin precursor (gsec2-1) gene, complete cds. AF201084
                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                       Secale cereale.
                                                                                                                                                                                                                                                                                                                     AF201084.1 GI:11493664
                                                                                                                                                                        translocation line
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615 c 213 g 366 t
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325. .1582
                                                         Location/Qualifiers
1. .4971
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/product="omega gliadin"
/db_xref="taxon:4550"
/note="rye gene isolat
                            /organism="Secale cereale"
/cultivar="Imperial"
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71.88;
gene isolated from a Triticum aestivum (wheat)
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                                                                                                Industry, CSIRO, PO Box 1600
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Best Local Similarity
Matches 279; Conserv
1341 GTCCCCCAGCAATCACAACAA 1361
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                                                                                                                                                                                                                                                CCCCAACAACCATTCCCCCTGGCAACCACAACAACCATTTCCCCAG---CCCCAAGAACCA 297
                                      TTTCCTCAACAACCTCAACCA 438
                                                                                                                                                                  GTCCCCCAGCAACCACTACAACAATTCCCCCCAGCAACCCAACAACCATTCCCCCAGCAA 1280
                                                                                                                                                                                                                                                                                                                                       ACACCCCAACAATATTTCCCCCTATCTACCAGAGGAATTGTTTCCCCCAATATCAAATACCA 183
                                                                                CCACTACAACAATTCCCCCAGCAACCCCAACAACCATTCCCTCAGCAACCACCAACAACCA 1340
                                                                                                                       ATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAACAGCCA 417
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/gene="gsec2-1"
1307 c 886 g
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2264 . .
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/product="secalin precursor"
864. .2231
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SSPQSQDPy POQEPQQLFPQSOQPOQPFPQPOQPOQPPOPOTOGSPAQPPQQP
QOPFPQSOEOFPQVHQPQQPSPQOQQPSIQLSLQQQLNPCKNVLLQQCSPVALVSSLR
SKIFPQSECQVMQQQCCQQLAQIFQQLQCAAIHSVVHAIIMQQEQHEGVQILLPQSHQ
QHVCQGALAQVQGIIQPQQLSQLEVVRSLVLQNLPTMCNVVVPRQCSTIQAPFASIVT
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2207. .2212
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/protein_id="AAG35598.1"
/db_xref="GI:11493665"
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/note="Mr 75,000
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763...768
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/note="75 kDal secalin"
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Pred. No. 5.
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JOURNAL
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VERSION
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                                          319 CAACCATTCCCCCAGACTCAACAACCCCAACAACCATTTCCCCCAGCTCCAGCAACCA 375
                                                                                                                                                                                                                                                 211 CCC-----CAACAACCACAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAA
                                                                                                                                                                                                                                                                                             151 CCAGAGGAATTGTTTCCCCAATATCAAATACCAACCCCCCTACAACCACAACCATTC
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                                                                                                                                                                                                                                                                                                                                                                   91 CAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCCCTATCTA 150
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AF175312
AF175312.1 GI:7230477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oslo, Pilestredet 32, Oslo 0027, Norway Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooldeae; Triticeae; Triticum.

1 (bases 1 to 927)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arentz-Hansen,E.H., McAdam,S.N., Molberg,O.,
Sollid,L.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Production of a panel of recombinant gliadins for the characterization of T cell reactivity in coeliac disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Arentz-Hansen, E.H., McAdam, S.N., Molberg, O.,
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                                                                      CAACAAT---CATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCA 438
                                                                                                  CCACAACAACCATTTCCCCCAGACTCAACAACCCCCAACAACCATTTCCCCCAACAACCACAA
                                                                                                                             CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC 384
                                                                                                                                                           CCACAACAACCATTCCCCCAGACTCAACAACCA---
                                                                                                                                                                                          CCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCCCCAACAACCATTCCCCTGGCAA 324
                                                                                                                                                                                                                      CCCCAGCCTCAGCAACCACAACCATTTCTCCAGCCCCAACAACCATTCCCCCCAACAA
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342 c 125 g 161 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Triticum aestivum"
/strain="Yamhill"
/db_xref="taxon:4565"
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                                                                                                                                                                                                                                                                                                                                                                                                                            Score 140.4;
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                                                                                                                                                                                                                                                                                                                                                                                                                            DB 8;
                                                                                                                                                                                                                                                                                                                                                                                               98;
                                                                                                                                                            -CAACAACCATTTCCCCAGCAA
                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          Length 927;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kristiansen, C.
                                                                                                                                                                                                                                                                                                                                                                                               15;
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Anderson, O.D., Hsia,
Direct Submission
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Anderson, O.D., Hsia, C. and Torres, V.
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gliadin: seed storage protein.
wheat (T.aestivum, Cv.Yamhill) DNA, clone pW1621
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450 a 452 c 210 g 28
190 bp upstream of Sall site.
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Nucleotide sequence of A wheat ga
nt Sci. 44, 205-209 (1986)
Location/Qualifiers
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124 ...1107
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/db_xref="taxon:4565"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (15-FEB-2000) Agricultural Research Service, U. Department of Agriculture, 800 Buchanan Street, Albany, (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Anderson, O.D., Hsia, C. and Torres, V. Direct Submission
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Anderson,O.D., Hsia,C. and Torres,V.
Direct Submission
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Albany, CA 94710,
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Search completed: May 25, 2003, 19:41:07 Job time: 1769.52 secs

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SUMMARIES
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58.60, aa: G 313.315, aa: 316.318, aa: 319.321, aa: 327.339, aa: 347.339, aa: 347.3345, aa: 348.345, aa: 349.351, aa: 349.351, aa:		<pre>protein; glute cake; pastry; : erial; packaging</pre>	C hordein				STNE																					
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bind ligands that may be useful in food preparation or in food is composition, e.g. a domain that binds lipids or starch. The method is used for producing modified glutenins. Glutenins and seed-storage protein are useful for preparing food products such as leavened or unleavened breads, pasta, noodles, breakfast cereals, snack foods, cakes, pastries and foods containing flour based sauces. Glutenins and seed-storage protein are also useful for preparing nonfood products such as films, coatings, adhesives, building materials and packaging materials. Grain or parts of grain containing the modified glutenin and seed-storage protein is useful for preparing food products. The modified glutenins and seed-storage proteins are also useful as modifiers of food products in food industry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence encodes a synthetically truncated barley C hordein protein, which is a glutenin. The protein is designated hordeit encodes, and is modified, according to the method of the metho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              {\tt Modifying} glutenin or seed-storage protein for preparing foodstuffs, films, coatings, packing materials, adhesives and building materials
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     modified glutenin or seed storage protein, by adding to the protein a domain that confers the ability to incorporate into gluten, or to bind a ligand or other macromolecule. The domain can be any domain that will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Fig 3; 76pp; English.
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(GOOD-)
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GOODMAN FIELDER LTD.
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                                                          CCCCAACAACCATTCCCCTGGCAACCACAACAACCATTTCCCCAGCCCCAAGAAČCAATT
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                                                                                                                                              CAGCCATATCCACAAAACCCATATCTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTT
Morell M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
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Pred. No. 1.4e-100;
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detection; diagnosis; human; ds.
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                                                             Sequence 5163
                                                                                                             a Cryptosporidium infection in humans or in animals such They can also be used for the detection and diagnosis of
                                                                                                                                                            'n
                                                                                                                                                                         The sequence
                                                                                                                                                                                                         Claim 32; Pages 60-62;
                                                                                                                                                                                                                                                      Anti-Cryptosporidium detection, diagnosis,
                                                                                                                                                                                                                                                                                                        P-PSDB;
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              Local
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                                                                                                                                        sequence is that encoding the GP900 antigen which may be used
he production of anti-Cryptosporidium antibodies. These can be
for the prophylaxis, treatment, inhibition or retardation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
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Score 118.8; DB 19
pred. No. 5.3e-18;
0; Mismatches 192;
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                                                                                                                                                                                                                                                           to develop products for 
treatment of Cryptospor
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                                                                1278 T;
                               DB 19;
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                                                                0 other;
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related
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CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCATAT

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RESULT 3
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                                                                                                                                                                                                                                                                                                                                   GP900; NINC isolate; glycoprotein; antibody; cryptosporidiosis; competitive inhibition; attachment; invasion; ligand binding; sumerozoite; diarrhoea; protozoacide; open reading frame; ORF; ds
                                                                                                        29-MAY-1992;
03-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                 ORF encoding
                                                                                                                                                                                                                                                                                                                 Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                          AAA61849;
                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA61849 standard; DNA; 5163
                   WPI; 2000-422065/36
P-PSDB; AAB11727.
                                                   Petersen
                                                                                                                             13-SEP-1996;
01-JUN-1993;
                                                                                                                                                                                   06-JUN-2000
                                                                                                                                                                                                        US6071518-A
                                                                                                                                                                                                                                                                                                                                                                                                       28-OCT-2000
                                                                         (REGC ) UNIV
                                                                                               14-AUG-1996;
                                                                                                                                                               12-SEP-1997;
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                                                                         CALIFORNIA
                                                                                                        96US-0026062.
93US-0071880.
92US-0891301.
95US-0415751.
                                                                                                                                                                                                                                                                                                                                                                                 portion of Cryptosporidium parvum NINC isolate
                                                                                               96US-0700651
                                                                                                                                                             97US-0928361.
                                                                                                                                                                                                                           /product= "Cryptosporidium parvum NINC isolate GP900"
/note= "No start or stop codons given in the specification"
                                                                                                                                                                                                                                                           /partial
                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                        /*tag=
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individual. Cryptosporidium parvum GP900 and GP900 fragments are able to competitively inhibit sporozoite or merozoite attachment or invasion, and are also useful for the generation of anti-GP900 antibodies. The antibodies also inhibit sporozoite or merozoite attachment/Invasion and additionally inhibit the binding of GP900 ligands to GP900. GP900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit anti-GP900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an
                                                                                  immunocompromised persons. Cryptosporidiosis can be contracted from contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the detection of the parasite in the environment. The present sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 16; Column 47-52; 59pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive inhibition of the function of GP900 - \,
                          represents the open reading frame (ORF) encoding a portion of the GP900 protein of the NINC isolate of Cryptosporidium parvum.
                                                                                                                                                                                                                                                                           prevent cryptosporidiosis. Infection with Cryptosporidium is a common cause of diarrhoea in humans and causes life-threatening diarrhoea in
                                                                                                                                                                                                                                                                                                                                          proteins, fragments and antibodies may therefore be used to treat or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     relates to the GP900 glycoprotein of the protozoan
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Sequence 5163 BP; 1873 A; 1138 C; 875 G; 1277 T; 0 other;

QУ В B Ş В 9 дδ 0у В δÃ B QΥ Db Qy Matches 234; Query Match Local Similarity 1100 1040 445 CAACAA 450 385 980 265 CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCCTGGCAA 324 85 CTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCC 25 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAAACCCATAT 84 CCACAACAACATTTCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCC CCATTCCCCCAACAACAACCACCTCTTCCTCGGCCCCAACAACAACCATTCCCCTGGCAA 264 CAACAATCATACCCTGTGCAACCTCAACAGCCATTTCCTCAACAACCTCAACCAGTCCCC 444 CAACAACAACAACAACTACAACTACCAAGAAACCAACAACTACTACTACTACCA 1039 CTACAACCACAACAACTACAACCACAACAACCACAAACCACAACTACCAAGAAAC Conservative 24.98; 54.98; 0; Score 118.8; Pred. No. 5. Mismatches 192; 5.3e-18 DB 21; Indels Length 5163; 0; Gaps 979 144 859 919 384 0,

New GP900 protein fragments and fusion proteins of Cryptosporidium

ABT04778 ID ABT(

ABT04778 standard; DNA; 5163

ВP

CAACAA 1105

ABT04778;

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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing cryptosporidiosis. This involves obtaining a sample and contacting it with Cryptosporidium 69900, P68 or cryptopain antigen, antibody, DNA or RNA, or its variant, mutant or fragment. The method is also useful for detecting and identifying individual Cryptosporidium isolates based on the genetic characteristics, and for diagnosis of prior or concurrent cryptosporidium infection. The present sequence is a C. parvum coding sequence used in the exemplification of the invention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Detecting Cryptosporidium in biological and environmental samples a diagnosis of cryptosporidiosis involves, contacting the sample with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
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                                                               CAACAACAACAACAACTACAACTACCAAGAAACCAACAACTACTACTACTACCA
                                                                                       CCACAACCATTICCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCCAGCAACCC
                                                                                                                                                CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCTGGCAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     24.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
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Pred. No. 5.3e-18;
0; Mismatches 192;
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Best Local S
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                                                                                                                                The sequence is that encoding the GP900 antigen which may be used in the production of anti-Cryptosporidium antibodies. These can be used for the prophylaxis, treatment, inhibition or retardation of a Cryptosporidium infection in humans or in animals such as calves They can also be used for the detection and diagnosis of related
                                                                                                                                                                                                                                                                                                                                                                                                                      misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Open reading
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAV20701;
                                                                                                                                                                                         Claim 32;
                                                                                                                                                                                                                     Anti-Cryptosporidium antibody - used detection, diagnosis, prophylaxis or
                                                                                                                                                                                                                                                                                Gut J,
                                                                                                                                                                                                                                                                                                   (REGC ) UNIV CALIFORNIA
                                                                                                                                                                                                                                                                                                                       14-AUG-1996;
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                                                                                                  Sequence 5318 BP;
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DB; AAW48299.
 85
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                                                                     Similarity
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                      CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ing frame; ORF; antigen; GP900; cryp:
prophylaxis; treatment; inhibition;
; diagnosis; human; 3' region; ds.
CTACCGCAAAAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCCAACAATATTTCCCC
                                                                                                                                                                                          Pages 62-63; 89pp; English.
                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
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/product= .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
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                                                                                                  1944 A; 1153 C; 888 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                Score 118.8;
                                                            Pred. No. 5.40); Mismatches
                                                                                                                                                                                                                                                                                 Petersen
                                                                                                                                                                                                                                                                                                                                                                                                     containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GP900;
                                                                                                                                                                                                                      to develop products for treatment of Cryptosporidium
                                                             5.4e-18;
ches 192;
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AX GP90
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AXW COMP
KW COMP
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New GP900 protein fragments and fusion proteins of Cryptosporidium parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive inhibition of the function of GP900 -
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14-AUG-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GP900; NINC isolate; glycoprotein; antibody; cryptosporidiosis; competitive inhibition; attachment; invasion; ligand binding; s
                                                                                                                            P-PSDB;
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29-MAY-1992;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             merozoite; diarrhoea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA encoding
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                                                                                                                            2000-422065/36.
DB; AAB11727.
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93US-0071880.
92US-0891301.
95US-0415751.
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                                                                                                                                                                                                                                                                                                     96US-0700651
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/note= "No start codon given in the specification"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           n; attachment;
protozoacide;
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ds.
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Matches Query Match

234;

Conservative

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Local

Similarity

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Indels Length other;

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immunocompromised persons. Cryptosporidiosis can be contracted from contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the detection of the parasite in the environment. The present sequence represents genomic DNA encoding a portion of the GP900 protein of the NINC isolate of Cryptosporidium parvum.
                                                                                                                                                                                                                                                                                                            The invention relates to the GP900 glycoprotein of the protozoan cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit antige900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to competitively inhibit sporozoite or merozoite attachment or invasion, and are also useful for the generation of anti-GP900 antibodies. The antibodies also inhibit sporozoite or merozoite attachment/invasion and antibodies also inhibit sporozoite or merozoite attachment/invasion and additionally inhibit the binding of GP900 ligands to GP900. GP900 proteins, fragments and antibodies may therefore be used to treat or prevent cryptosporidiosis. Infection with Cryptosporidium is a common cause of diarrhoea in humans and causes life-threatening diarrhoea in immunocompromised persons.
Sequence 5318 BP; 1939 A; 1158 C; 890 G; 1331 T; 0
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                         CAACAA 450
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CAACAA 1105
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Pred. No. 5.4e-18;
0; Mismatches 192;
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5318

ВР

27-SEP-2002 ABT04777; ABT04777

(first entry)

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cryptosporidium
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CAACAA 450
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cryptosporidium in biological and environmental samples and of cryptosporidiosis involves, contacting the sample with ridium GP900, P68 or cryptopain antigen, antibody, DNA or RNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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54.9%;
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Pred. No. 5.4e-
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03-APR-1995;
14-AUG-1996;
                                               contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the
                                                                                                                                                                                                                                                                                                                                                                                         GP900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to competitively inhibit sporozoite or merozoite attachment or invasion, and
                                                                                                                                                                                                                                                                                                    are also useful for the generation of anti-GP900 antibodies. The antibodies also inhibit sporozoite or merozoite attachment/invasion additionally inhibit the binding of GP900 ligands to GP900. GP900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit anti-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   diagnosing or treating Cryptosporidium infections inhibition of the function of \ensuremath{\mathsf{GP900}} -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New GP900 protein fragments and fusion proteins of Cryptosporidium parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2000-422065/36.
P-PSDB; AAB11726.
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                                                                                                                                                                                                               prevent cryptosporidiosis. Infection with Cryptosporidium is a common cause of diarrhoea in humans and causes life-threatening diarrhoea in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 16;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-SEP-1996;
01-JUN-1993;
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                                  detection of the parasite in the environment.
                                                                                                                                                                                                                                                                              proteins, fragments and antibodies may therefore be used to treat or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to the GP900 glycoprotein of the protozoan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Petersen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-SEP-1997;
                                                                                                                                                                                immunocompromised persons. Cryptosporidiosis can be contracted from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1100 CAACAA 1105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Column 37-42; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diarrhoea; protozoacide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      isolate; glycoprotein; antibody; cryptosporidiosis; inhibition; attachment; invasion; ligand binding; s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CALIFORNIA
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95US-0415751
96US-0700651
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93US-0071880
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /product=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "t= "Cryptosporidium parvum Iowa isolate GP900"
"No stop codon given"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GP900 fragments, and fusion invention also relates to the
                            The present sequence
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                               Detecting Cryptosporidium in biological and environmental samples and diagnosis of cryptosporidiosis involves, contacting the sample with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or RNJ
        Disclosure;
                                                                          WPI; 2002-566447/60
                                                                                           Petersen C,
                                                                                                              (REGC ) UNIV CALIFORNIA
                                                                                                                                 06-JUN-2000; 2000US-0588995
                                                                                                                                                   14-MAY-2001;
                                                                                                                                                                       13-DEC-2001
                                                                                                                                                                                           WO200194631-A1
                                                                                                                                                                                                            Cryptosporidium
                                                                                                                                                                                                                               gene;
                                                                                                                                                                                                                                    Cryptosporidium detection; GP900; P68; cryptopain; cryptosporidiosis;
                                                                                                                                                                                                                                                              C
                                                                                                                                                                                                                                                                                27-SEP-2002
                                                                                                                                                                                                                                                                                                                     ABT04776 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 5511 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Iowa
                                                                                                                                                                                                                                                          parvum GP900 gene fragment SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                              TACCCTGTGCAACCTCAACAGCCATTTCCTCAACCAACCTCAACCAGTCCCCCCAACAA 450
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                                                                                                                                                                                                                                                                                                                                                                   CCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTTCCAGCAACCCCAACAATCA 393
                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACAACAACAACTACTACTACAACCACGACAACAACCACGACAACCACCACAACCA 1345
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 99-101; 157pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                    2001WO-US15624
                                                                                          Barnes
                                                                                                                                                                                                                                                                             (first entry)
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                                                                                                                                                                                                            parvum
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                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                           DA,
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54.2%;
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                                                                                           Nelson
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Pred. No. 2.7e-16;
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                                                                                           RG,
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                                                                                           Gut
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RESULT 10
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                                                                                                                                                                                                                                                                               Key
5'UTR
                                                                                                                                                                                                                                                                                                                                                                                                                 GP900: Iowa isolate; glycoprotein; antibody; cryptosporidiosis; competitive inhibition; attachment; invasion; ligand binding; sporozoite; merozoite; diarrhoea; protozoacide; ds.
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                     US6071518-A
                                                                                                            3'UTR
                                                                                                                                                                                                                                                                                                                                                                 Cryptosporidium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cryptosporidium parvum
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAA61846 standard; DNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAACTACAACTACCAAGAAACCAACAACTACTACTACTACCACAACAACAACAACTA 1405
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1669..7182
                                                                                                                                                                                                                                                                                                                                                                    parvum.
                                                                                                   /*tag= b
/product= "Cryptosporidium parvum Iowa isolate
/transl_except= (pos:7021..7023, aa:Asp)
                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                  . 1668
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23.4%; 54.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Iowa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          isolate GP900
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Pred. No. 2.7e-16;
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01-JUN-1993;
29-MAY-1992;
03-APR-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   prevent cryptosporidiosis. Infection with Cryptosporidium is a common cause of diarrhoea in humans and causes life-threatening diarrhoea in humans compromised persons. Cryptosporidiosis can be contracted from contaminated municipal water supplies (e.g., public swimming pools). It is also a cause of disease in animals, resulting in financial losses in agriculture. GP900 fragments, fusion proteins and antibodies may also be used for the diagnosis of Cryptosporidium parvum infections, and for the detection of the parasite in the environment. The present sequence represents genomic DNA encoding the GP900 protein of the Iowa isolate of Cryptosporidium parvum.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           competitively inhibit sporozoite or merozoite attachment or invasion, and are also useful for the generation of anti-GP900 antibodies. The antibodies also inhibit sporozoite or merozoite attachment/invasion and additionally inhibit the binding of GP900 ligands to GP900. GP900 proteins, fragments and antibodies may therefore be used to treat or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GP900 antibody production, and to a method of cryptosporidiosis treatment or prophylaxis comprising administration of anti-GP900 antibodies to an individual. Cryptosporidium parvum GP900 and GP900 fragments are able to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to the GP900 glycoprotein of the protozoan Cryptosporidium parvum, DNA encoding it, GP900 fragments, and fusion proteins comprising GP900 fragments. The invention also relates to the administration of GP900 or fragments thereof to a host to elicit anti-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 16; Column 31-38; 59pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New GP900 protein fragments and fusion proteins of CryptosporIdium parvum, useful for detecting the presence of the parasite, and diagnosing or treating Cryptosporidium infections by competitive inhibition of the function of GP900 -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Petersen
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DB; AAB11726.
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                                   CCATTTCCCCAGCCCCAAGAACCAATTCCCCAACAACCATTCCCCTGGCAACCACCAACAA 333
                                                                                                                                                                                                                           CANCCACAACCACAACTACCAAGAAACCAACCAACAACAACAACAACAACTACTACTA 283
                                                                                                                                                                                                                                                               AAACCATTTCCAGTGCAGCAACCGTTTCACACACCCCAACAATATTTCCCCCTATCTACCA 153
                                                                                                                                                                                                                                                                                                                                       CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCATATCTACCGCAA 93
CAACAACAACAACAACTACTACTACAACCACGACAACAACAACCACGACAACCACCA
                                                                                                                                                                                                                                                                                                    CAACAACCACAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAACCACCAACAA 273
                                                                                                                                                   Conservative
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93US-0071880.
92US-0891301.
95US-0415751.
96US-0700651.
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                                                                                                                                                                                                                                                                                                                                                                                              23.4%;
                                                                                                                                                                                                                                                                                                                                                                                                Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                Score 111.4;
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RESULT 11
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Best Local :
                                                                                                                                                                                                                                                                       detecting and identifying individual Cryptosporidium isolates based on
the genetic characteristics, and for diagnosis of prior or concurrent
Cryptosporidium infection. The present sequence is a C. parvum coding
                                                                                                                                                                                                                                                                                                                                           The present invention relates to a method of detecting Cryptosporidium biological and environmental samples, and of diagnosing biological and environmental samples, and of diagnosing tryptosporidiosis. This involves obtaining a sample and contacting it cryptosporidiosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting Cryptosporidium in biological and environmental samples and diagnosis of cryptosporidiosis involves, contacting the sample with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA or RNI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C parvum GP900
                                                                                                                                                                                                                                                                                                                   with Cryptosporidium GP900, P68 or cryptopain antigen, antibody, DNA o RNA, or its variant, mutant or fragment. The method is also useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (REGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Cryptosporidium
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                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 97-99; 157pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2002-566447/60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Petersen C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-JUN-2000;
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                                                                                                                                                                                                                              Sequence 7334 BP;
                                                                                                                                                                                                                                                           sequence
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                                                                                                                                                                        226;
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                                                                                                                                            34 CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATATCTACCGCAA
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                                                                        AAACCATTTCCAGTGCAGCAGCGTTTCACACACCCCAACAATATTTCCCCCTATCTACCA 153
                                                                                                               CAACAACAACAACTACTACTACTACAACCACAACAACTACAACCACGACAACTA
                                                                                                                                                                                                                                                           used in the exemplification of the invention.
                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                              2627 A; 1536 C; 1263 G; 1908 T; 0 other.
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RESULT 12
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                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                              Sequence 1107 BP;
                                                                                                                                                                                                                                                                                                                                                                  The present sequence represents a glutenin gene, and is isolated from the genomic DNA of Triticum durum L. The gene codes for a low-molecular-weight glutenin protein and can be used to produce transgenic durum wheat plants with "better quality characteristics" [no details given].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           molecular weight
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Durum wheat glutenin gene -
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DB; AAW62647.
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AAAACCATTTCCAGTG----CAGCAACCGTTTCACACACCCCCAACAATATTTCCCCTATCT
                                                                                                                                    GCAACAACAACCACCATTATCGCAACAACAACAACCACCATTTTCGCAGCAACAACA
                                                                                                                                                                                  GCAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATATCTACCGCA 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCATTTCCCCAGCCCCAAGAACCAATTCCCCCAACCACTTCCCCTGGCAACCACACAACAA
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                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MIN UNIV RICERCA SCI & TECNOLOGICA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 durum wheat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          durum wheat glutenin protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18pp; French.
                                                                                                                                                                                                                                                                                                                              368 A;
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56.7%;
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                                                                                                                                                                                                                                                                                                                         377 C; 152 G; 210 T; 0 other;
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                                                                                                                                                                                                                                                     Score 107.4; DB 1
Pred. No. 1.6e-15;
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                                                                                                                                                                                                                                                                             DB 19;
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26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
                                                                                                                  New spatially-addressable set of single exon nucleic acid useful for measuring gene expression in sample derived fro
                                                                                                                                                 WPI; 2001-496933/54
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                                                                                                                                                                                                                                                                                                                                                                      disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                        2002
                                                                                                                                                                                       MOLECULAR DYNAMICS INC
                                                                                                           comprises number
                                                                                                                                                                                                                                                                                                                                                                      cancer;
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2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-02346359.
2000US-0236359.
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                                                                                                                                                                                                                                                                    2000US-0180312
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                                                                                                         gene expression in sample derived from mber of single exon nucleic acid probes
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                                                                                                                                                                    Rank
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                                                                                                                                                                     DR;
                                                                                                                             probes,
                                                                                                                   human
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The invention relates to a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human breast and BT 474 cells. The method involves contacting the probes with a collection of detectably labelled nucleic acids derived from mRNA of human breast, and then measuring the label

Claim 4;

SEQ ID NO 8641; 327pp + sequence listing; English.

bound to each probe of the microarray. The probes are useful verifying the expression of regions of genomic DNA predicted encode proteins. They are useful for gene discovery, and for

6 for δÃ Ър 9 В QΥ Db Q Дb Qy B

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RESULT 14
ABA67865
ID ABA67865
AC ABA67
XX ABA67
XX Humar
XX Humar
XX Humar
XX Homo
XX Homo
XX WO200
XX WO200
XX WO300
PN WO200
XX WO300
PN WO300
XX WO300
X
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Best Local S
Matches 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         than expressed sequence tag microarrays. The method is suitable for rapid production of functional information from genomic sequence. The present sequence is a single exon nucleic acid probe of the invention Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             determining predisposition and/or prognosing breast disease. Gene expression analysis is useful for assessing the toxicity of chemical agents on cells. The microarray of this invention presents a far greater diversity of probes for measuring gene expression, with far less bias
04-FEB-2000; 2000US-0180312
26-MAY-2000; 2000US-0207456
30-JUN-2000; 2000US-0608408
                                                                                                                      09-AUG-2001.
                                                                                                                                                           WO200157277-A2
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                                                                                                                                                                                                                                                                                                                                                                                                ABA67865 standard;
                                                                               30-JAN-2001;
                                                                                                                                                                                                  Homo sapiens
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                                                                                                                                                                                                                                                                           foetal liver single exon
                                                                                                                                                                                                                                      foetal
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCATTTCCCCAGCCCCAAGAACCAATTCCCCCAACAACCATTCCCCTGGCAACCACAACAA 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAACAACCACAACAACCTCTTCCTCGGCCCCAACAACCATTCCCCTGGCAACCACAACAA 273
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                                                                               2001WO-US00669
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                                                                                                                                                                                                                                      liver;
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                                                                                                                                                                                                                                                                                                                                                                                                DNA;
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Pred. No. 3.3e-
0; Mismatches
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                                                                                                                                                                                                                                                                           nucleic acid probe
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                                                                                                                                                                                                                                      single
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23-JAN-2002 ABA34921;

(first entry)

ABA34921

standard;

DNA;

1635

ВP

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Matches
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21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to a single exon nucleic acid probe for measuring human gene expression in a sample derived from human foetal liver. The single exon nucleic acid probes may be used for predicting, measuring and displaying gene expression in samples derived from human factal lives.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
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30-JUN-2000; 2000US-0632366.
21-SEP-2000; 2000US-0632365.
21-SEP-2000; 2000US-0234687.
27-SEP-2000; 2000US-0236359.
04-OCT-2000; 2000GB-0024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention relates to single exon nucleic acid probes for measuring human gene expression in a sample derived from human heart. The present sequence is one such probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease, hypertension, cardiac arrhythmias and
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US-08-928-36.1B-1
US-08-928-36.1B-1
US-09-103-429A-1
US-09-103-429A-1
US-09-103-429A-2
US-09-210-32-6
US-09-103-429A-1
US-09-103-429A-1
US-09-103-429A-1
US-09-103-429A-1
US-09-103-429A-1
US-08-147-777-1
US-08-452-877-3
US-08-452-877-3
US-08-452-877-3
US-08-452-877-3
US-08-147-777-3
US-08-146-1
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	Sequence 43, Appl	Sequence 103, App	Sequence 57, Appl		Sequence 83, Appl	13,	Sequence 1, Appli	<u>ა</u>	Sequence 5, Appli	Sequence 5, Appli		•	•	•	•	•	Sequence 22, Appl

ALIGNMENTS

RESULT 1 US-08-700-651-1

GENERAL INFORMATION:

Sequence 1, Application US/08700651B Patent No. 6015882

В QΥ DЬ 200 20 QΥ 망 В Qy B δÃ ; ORGANISM: Cryptosporidium US-08-700-651-1 APPLICANT: PETERSEN, CAROLYN
APPLICANT: LEECH, JAMES
APPLICANT: NELSON, RICHARD, C.
APPLICANT: NELSON, RICHARD, C.
APPLICANT: SUT, JIRI
TITLE OF INVENTION: VACCINES, ANTIBODIES, PROTEINS, GLYCOPROTEINS, DNAS AND
TITLE OF INVENTION: FOR PROPHYLAXIS AND TREATMENT OF CTYPTOSPORTIGUM PARVUM
TITLE OF INVENTION: INFECTIONS
FILE REFERENCE: 480.19-4 (HV)
CURRENT APPLICATION NUMBER: US/08/700,651B
CURRENT FILING DATE: 1997-08-14
EARLIER APPLICATION NUMBER: 08/415,751
EARLIER FILING DATE: 1995-04-03
NUMBER OF SED ID NOS: 15 Query Match Best Local Similarity SOFTWARE: PatentIn Ver. SEQ ID NO 1 Matches TYPE: DNA LENGTH: 5163 861 265 CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCCCCCAACAACCAATTCCCCTGGCAA 205 234; 85 CTACCGCAAAAACCATTTCCAGTGCAGGAACCGTTTCACACACCCCAACAATATTTCCCC 144 25 CAAGAGTTGCAATCACCACAACAATCATATCTGCCGCAGCCATATCCCACAAAACCCCATAT TACAACCACAACAACTACAACCACAACAACCACAACCACAACCACAACTACCAAGAAAC CCATTCCCCCAACAACCACCACAACAACCTCTTCCTCGGCCCCAACAACAACCATTCCCCTGGCAA CCACAACAACCATTTCCCCCAGCCCCAAGAACCAATTCAACAAATAATTTCCAGCAACCC Conservative 24.9%; 54.9%; parvum Score 118.8; DB 3; Pred. No. 2.2e-20; "ismatches 192; 0, Length 5163; Indels 0; Gaps 264 860 204 800 384 920 84 RNAS ٠.

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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 5163 base pairs
TYPE: nucleic acid
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TELEFAX: 650-324-1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION: NAME: Verny, Hana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                TOPOLOGY: 1: MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                      REGISTRATION NUMBER: 30
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 6 FILING DATE: 13-SEP-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
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5 Sherman Avenue, Suite 6
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Pred. No. 2.2e-20;
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LENGTH: 5318
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NUMBER OF SEQ ID NOS: 15
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: PETERSEN, CAROLYN
APPLICANT: LEECH, JAMES
APPLICANT: NELSON, RICHARD, C.
APPLICANT: GUT, JIRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/08/700,651B
CURRENT FILING DATE: 1997-08-14
EARLIER APPLICATION NUMBER: 08/415,751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: VACCINES, ANTIBODIES, PROTEINS, GLYCOPROTEINS, DNAS AND RNAS TITLE OF INVENTION: FOR PROPHYLAXIS AND TREATMENT OF CTYPTOSPORIGIUM PAIRVUM TITLE OF INVENTION: INFECTIONS FILE REFERENCE: 480.19-4(HV)
                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Cryptosporidium
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            325 CCACAACAACCATTTCCCCAGCCCCAAGAACCAATTCAACAATAATTTTCCAGCAACCC
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Pred. No. 2.2e-20;
0; Mismatches 192
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US-08-928-361B-3
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGISTRATION NUMBER: 30,518
REFERENCE/DOCKET NUMBER: 48
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-1677
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MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS: doubl
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE: 1 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US 6 FILING DATE: 13-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Palo Alto
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1101 CAACAA 1106
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CAAGAGTTGCAATCACCACAACCAATCATATCTGCCGCAGCCCATATCCACAAAACCCCATAT
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SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PETERS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA (genomic)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FOR TREATMENT AND DETECTION/DIAGNOSIS OF CRYPTOSPORIDIUM SPECIES INFECTIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERNY, JONES & BIKSA
n Avenue, Suite 6
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                                                                                                                                                                                                                                                                                                                                                  Score 118.8; DB 3;
Pred. No. 2.2e-20;
0; Mismatches 192;
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                                                                     US-08-928-361B-2
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   Matches
                                 Query Match
                    Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                 TELEFAX: 650-324-1678
INFORMATION FOR SEQ ID NO:
                                                                                     TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 5511 base pairs
                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/026,062
FILING DATE: 13-SEP-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION:
                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 650-324-1677
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                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA: APPLICATION NUMBER: US
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STREET: 385 She:
CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 30,518
REFERENCE/DOCKET NUMBER: 48
                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                 STRANDEDNESS:
                                                                                                                                    TYPE:
                                                                                                                                                                                                                    TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER:
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                                                                                                                                                                                                                                                                                        NAME:
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5. 6071518
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                                                                                                                                  nucleic acid
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385 Sherman Avenue, Suite 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
   Conservative
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SYSTEM: PC-DOS/MS-DOS
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12-SEP-1997
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                   23.4%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Carolyn
                                                                                                                                                                                     2:
                                                                                                                                                                                                                                                       480.76-1(HV)
 0;
Score 111.4; DB 3; Pred. No. 1.5e-18; 0; Mismatches 191;
                                 Length 5511;
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Gaps
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34 CAATCACCACAACAATCATATCTGCCGCAGCCATATCCACAAAACCCCATATCTACCGCAA 93

23.4%; 54.2%;

Score 111.4; DB 3; Pred. No. 1.6e-18;

Length 7334;

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US-08-928-361B-1
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US-08-928-361B-1
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                                                                                                                                                                           INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 30,518
REFERENCE/DOCKET NUMBER: 48
TELECOMMUNICATION INFORMATION:
TELEPHONE: 650-324-1677
                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Verny, Hana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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ADDRESSEE: PETERS, VERNY,
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CITY: Palo Alto
STATE: CA
                                                        TOPOLOGY: 11
                                                                                                                      TYPE:
                                                                                                                                                                                                                                          TELEFAX:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER:
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                                                                                                                                            LENGTH:
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e, Suite 6
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US-08-991-300-1
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CAACAACAACAACAACTACTACTACAACCACGACAACAACAACACGACAACCACAACCA 3013
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Sequence 1, Apprix
Sequence 1, Apprix
No. 5973225 GENERAL INFORMATION:
APPLICANT: D'OVID INFORMATION FOR SEQ ID NO: APPLICATION NUMBER: IT MI 96/A 002663 FILING DATE: 19-DEC-1996 ATTORNBY/AGENT INFORMATION: COMPUTER READABLE FORM: MEDIUM TYPE: Floppy NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS: TELECOMMUNICATION INFORMATION: TELEPHONE: 703-413-3000 PRIOR APPLICATION DATA: APPLICATION NUMBER: CURRENT APPLICATION DATA: TITLE OF INVENTION: STAIL.
COUNTRY: UL.
22202 NAME: OBLON, NORMAN F REGISTRATION NUMBER: CLASSIFICATION: APPLICATION NUMBER: FILING DATE: 16-DE COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS STREET: 1755 S. CITY: ARLINGTON REFERENCE/DOCKET NUMBER: ADDRESSEE: OBLON, ADDRESSEE: P.C. STREET: 1755 S. JE Application US/08991300 PORCEDDU, ENRICO
MERCHITELLI, CINZIA CARDELLI, LUISA ERCOLI
VENTION: ISOLATION AND CHARACTERIZATION OF A GENE 703-413-2220 USA PatentIn D'OVIDIO, P.C. 755 S. JEFFERSON DAVIS HIGHWAY Floppy disk 16-DEC-1997 800 SPIVAK, MCCLELLAND, MAIER & NEUSTADT ENCODING A LOW MOLECULAR WEIGHT GLUTENIN Release #1.0, Version σ RENATO US/08/991,300 24,618 2264-0201-0X #1.30

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LENGTH: 1107 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
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APPLICANT: Wang, Ping
TITLE OF INVENTION: A No. 6187558el Invertebrate Intestinal Mucin
 FILING DATE: 24-JUN-1998
CLASSIFICATION: 800
ATTORNEY/AGENT INFORMATION:
NAME: Michaels, Christop)
                                                                                        SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                 COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: A No. 6187558el Invertebrate Intesting TITLE OF INVENTION: cDNA and Related Products and Methods NUMBER OF SEQUENCES: 4
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                                                                                                                                                                                                                                           STREET: 118 N
CITY: Ithaca
STATE: NY
                                                                                                                         MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                       COUNTRY:
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Pred. No. 8.6e-18;
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US-09-103-429A-2

Sequence 2, Application US/09103429A Patent No. 6187558
GENERAL INFORMATION:

APPLICANT: Granados, KODELL N
APPLICANT: Wang, Ping
TITLE OF INVENTION: A NO. 6187558el Invertebrate Intestinal Mucin
TITLE OF INVENTION: cDNA and Related Products and Methods

COMPUTER READABLE FORM

14850

COUNTRY: CITY: Ithaca STATE: NY CITY:

USA

STREET: ADDRESSEE:

E: Brown, Pinnisi & Michaels, P.C 118 No. 6187558th Tioga

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOLECULE TYPE: NO HYPOTHETICAL: NO ANTI-SENSE: NO
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LENGTH: 2455 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: (607) 256-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 195; Conserv
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TISSUE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLONE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRANDEDNESS:
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651 CAACTACCCCGGCCGCAACTACCCCGGCCGCAACTACC
                              415 CCATTTCCTCAACAACCTCAACCAGTCCCCCAACAAGC 452
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                                                          AGGCCCCAACTACCACTCAGGCCCCAACTACAATCACCCAGGCTGCAACTACCCCGGCCG
                                                                                         CCAATTCAACAAATAATTTTCCAGCAACCCCAACAATCATACCCTGTGCAACCTCAACAG
                                                                                                                         CTCAGGCCCCTACCACAACCACCCAGGCCCCAACCACCCAGGCCCCAACTACCACCC
                                                                                                                                                      CCAATTCCCCAACAACCATTCCCCTGGCAACCACCACAACCATTTCCCCCAGCCCCAAGAA
                                                                                                                                                                                     CCCAGGCCCCAACTACCACTCAGGCCCCTACTACTACCACTCAGGCCCCAACCACCACCA
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49.0%;
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Pred. No. 2.7e-09;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 2455;
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MEDIUM TYPE:

Floppy disk

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                                                                           GENERAL INFORMATION:
                                                                                             Sequence 6, Application US/09272032A Patent No. 6296852
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                  APPLICANT: Johnson, Michael A. APPLICANT: Prideaux, Christopher T.
TITLE OF INVENTION: Recombinant Avian Adenovirus Vector
                    APPLICANT: McCoy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (607) 256-3628 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: (607) 256-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGINAL SOURCE:
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FRAGMENT TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
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DEVELOPMENTAL STAGE: larv
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
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TISSUE TYPE: peritrophic membrane
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                    Richard
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49.0%;
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Pred. No. 2.8e-09;
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RESULT 11
US-08-998-416-915
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA ; ORGANISM: fowl adenovirus US-09-272-032-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 62372...
Patent No. 62372...
Philip
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 915
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EARLIER FILING DATE: 1994-04-14
EARLIER APPLICATION NUMBER: AU PL 8297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/272,032A
CURRENT FILING DATE: 1999-03-18
EARLIER APPLICATION NUMBER: US 08/448,617
EARLIER FILING DATE: 1995-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 48-95a
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                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Wendland, Jurgen
APPLICANT: Knechtle, Philipp
APPLICANT: Rebischung, Corinne
TITLE OF INVENTION: GENOMIC DNA SEQUENCES OF ASHBYA GOSSYPII
                                                                                                                                                                                                                             COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT:
                                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: CH 0016/97
                                                                                                                                CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: GENOMIC DNA SEQUITITLE OF INVENTION: AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                    STREET: 3054 COLUMNATE PARK CITY: Research Triangle Park STATE: No. 6239264th Carolina
                                                                                                                                                                     COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                  COUNTRY: UZIP: 27709
                 FILING DATE:
                                                                           CLASSIFICATION:
                                                                                          FILING DATE:
                                                                                                                APPLICATION NUMBER:
                                                                                                                                                    SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                           MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
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Steiner, Sabine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Philippsen, Peter
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                                                                                            24-DEC-1997
                     31-DEC-1996
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58.9%;
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Pred. No. 1.
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es 85; Indels
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RESULT 12
US-08-147-777-1/c
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                                                                                                                                                                                                                Sequence 1, Application US/08147777 Patent No. 5914265 GENERAL INFORMATION:
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                                                                                                                                                     APPLICANT:
APPLICANT:
APPLICANT:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 919-541-8587
TELEPAX: 919-541-8689
                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                        TITLE OF INVENTION: KERATIN K1 EXPRESSION VECTORS TITLE OF INVENTION: AND METHODS OF USE NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity 49.98; nes 212; Conservation
                                 CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 688 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                  COUNTRY:
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                                                                             ADDRESSEE:
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      90017
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611 West Sixth Street
                                                                                                                                                    Rothnagel, Joseph A.
Greenhalgh, David A.
Yuspa, Stuart H.
                  U.S.A.
                                                                                                                                                                                                 Roop, Dennis R.
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                                                                                                                                                                Sequence 1, Application US/08452872 Patent No. 6057298
            APPLICANT: ROOP, Dennis R.
APPLICANT: Rothnagel, Joseph A.
APPLICANT: Greenhalgh, David A.
APPLICANT: Yuspa, Stuart H.
TITLE OF INVENTION: KERATIN K1 EX
TITLE OF INVENTION: AND METHODS C
NUMBER OF SEQUENCES:
ADDRESSED: LYON & LYON
                                                                                                                                                    GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                  1598
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611 West Sixth Street
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                                                    AND METHODS OF USE
                                                                           KERATIN K1 EXPRESSION VECTORS
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Query Match
Best Local Similarity 53.9
Matches 145; Conservative
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TELEX: 67-3510
INFORMATION FOR SEQ ID NO:
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LENGTH: 10747 base pai
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RIOR APPLICATION DATA: described below:
APPLICATION NUMBER: 07/876,289
FILING DATE: April 30, 1992
APPLICATION NUMBER: Unassigned (204/144)
FILING DATE: October 29, 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM: IBM MS-PO-
SOFTWARE: --
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Warburg, Richard J. REGISTRATION NUMBER: 32,3
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                                          CCTCAACAACCTCAACCAGTCCCCCAACA 449
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GCACCAAAGCTACCACCACCACCACCACA 1450
                                                                                        ATGGAGATGCTTTTACTGCCACCAAGGTTAACAAGACTCCGACTTCCAAATCCACCACCA 1479
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53.9%;
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Pred. No. 1.8e-08;
0; Mismatches 124;
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                                                                                                                                                          RESULT 14
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                                                                                                            Sequence 1, Application PC/TUS9303985 GENERAL INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 1:
APPLICANT: Greenhalg
APPLICANT: Yuspa, St
TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: IBM MS-DOS (Version SOFTWARE: WordPerfect (Version 5.1) CURRENT APPLICATION DATA:
                                                                              APPLICANT:
                                                                                               APPLICANT:
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MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION: TELEPHONE: (213) 489-1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION: NAME: Warburg, Richard J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: IBM MS-DOS
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                                                                                                                                                                                                         1478 GCACCAAAGCTACCACCACCACCACCACA 1450
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California
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                                             Rothnagel, Joseph A.
Greenhalgh, David A.
Yuspa, Stuart H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (213) 955-0440
                                                                                               Roop, Dennis R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 single
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53.9%;
 DEVELOPMENT OF A VECTOR TO TARGET GENE EXPRESSION TO THE EPIDERMIS OF TRANSGENIC ANIMALS 5
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Pred. No. 1
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RESULT 15
US-08-147-777-3/c
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                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/08147777 Patent No. 5914265
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Best Local
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ZIP: 77010-30-5
COMPUTER READABLE FORM:
COMPUTER: READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
COMPUTER: PC-DOS/MS-DO
                             APPLICANT: Roop, Dennis R.
APPLICANT: Rothnagel, Joseph A.
APPLICANT: Greenhalgh, David A.
APPLICANT: Yuspa, Stuart H.
TITLE OF INVENTION: KERATIN K1 EXPRES
TITLE OF INVENTION: AND METHODS OF US
NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
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COUNTRY: U.S.A.
770: 77010-3095
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HYPOTHETICAL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION DATA:
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ADDRESSEE: Fulbright & Jaworski
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ANTI-SENSE:
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REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1718
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53.9%;
                                                                                                            KERATIN K1 EXPRESSION VECTORS
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Pred. No. 1.8e-08;
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PRIOR APPLICATION DATA: including application PRIOR APPLICATION DATA: described below: APPLICATION NUMBER: 07/876, 289
FILING DATE: April 30, 1992
APPLICATION NUMBER: Unassigned (204/144)
FILING DATE: October 29, 1993
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 204/153
REGISTRATION NUMBER: 204/153
TELECOMMUNICATION INFORMATION:
TELEFAX: (213) 955-0440
TELEFAX: 67-3510
INFORMATION FOR SED ID NO: 3:
SPOINEACE CHARACTERICS:
Search completed: May 25, Job time: 52.7974 secs
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 14.8%; Score 70.6; DB 2; Length 24979; Best Local Similarity 53.9%; Pred. No. 2.4e-08; Matches 145; Conservative 0; Mismatches 124; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage COMPUTER: IBM PC compatible OPERATING SYSTEM: IBM MS-DOS (Version 5.0) SOFTWARE: WordPerfect (Version 5.1) CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/147,777 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM: MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
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PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 24979 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION: 800
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STREET: 611 West Sixth Street
CITY: Los Angeles
STATE: California
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                                                                             15710 GCACCAAAGCTACCACCACCACCACCACA 15682
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